



802.11g Multi-Port Print Server

FPS-3121G

User's Manual

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Revision

User's Manual for PLANET 802.11g Multi-Port Print Server

Model: FPS-3121G

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Chapter1 Introduction

1.1 Product Introduction

Thank you for purchasing and using our FPS-3121G. This print server allows your printer to become a shared device on the network. It offers printing flexibility and manageability on your Local Area Network at an extremely low cost and with an absolute minimum setup and maintenance required.

This print server provides wired and wireless for users to connect all the exist network. Ttwo USB 2.0 ports and one parallel port all the printers in the market.

This print server supports TCP/IP, IPX/SPX and AppleTalk protocols. It is the best network printing solutions for various common network operating systems such as Windows 95/98/Me Peer-to-Peer Printing, Windows NT/2000/XP/Server 2003, NetWare, Unix/Linux, MAC OS, etc.

With the help of Installation Wizard, you can easily and instantly complete the settings for your printing environment, and start enjoying the fantastic features provided by this print server.

In the following chapters, we will introduce in detail the printing features, installation methods, and system configuration for different network environments.

1.2 Product Package

This package contains the following components:

1 x FPS-3121G

1 x Power Adapter

1 x Driver and User's Manual CD

1 x Quick Installation Guide

1 x Dipole Antenna

1.3 Contents of the User's Manual

Chapter 2 explains print server's hardware installation and configuration. It is strongly recommended for you to read.

The following chapters 3, 4, 5, and 6 introduces:

Chapter 3. Windows Peer-to-Peer Network

Chapter 4. Windows Server-Based Network

Chapter 5. NetWare Network

Chapter 6. UNIX System Network

You may select the appropriate chapters and sections to read depending on your network printing's requirement.

Chapter 7 and chapter 8 introduce print server's management and configuration utilities on Windows and Web Browser's environment respectively. You may select the appropriate management utility according to the administrator's computer platform.

Chapter 9 introduces Print Server's IPP Printing function and setup procedure. The IPP Printing provides a convenient way to print documents across the Internet by the IPP protocol.

1.4 Printing Function

The print server provides a complete network printing solution. The feature set is listed below:

PTPP (Peer-to-Peer-Printing)

TCP/IP (LPR, SMB)

IPP Printing

NetWare Bindery Printing

AppleTalk

1.5 LED Indicators

| LED | Color | Description |
|------|--------|---|
| PWR | Green | Off: Printserver is not power on On: Printserver is working |
| WLAN | Green | Off: Wireless interface is disable Blink: Wireless interface is enable |
| P1 | Green | Off: Parallel port is no connected On: Parallel port is connected Blink: Data transferring |
| P2 | Green | Off: USB printer is not connected On: USB printer is connected Blink: Data transferring |
| P3 | Green | Off: USB printer is not connected On: USB printer is connected Blink: Data transferring |
| LAN | Green | Off: LAN port is not connected On: LAN port is connect to 100Mbps device Blink: Data transferring |
| | Orange | Off: LAN port is not connected On: LAN is connect to 10Mbps device Blink: Data transferring |

1.6 Specification

| | |
|---------------------------|---|
| Model | FPS-3121G |
| Wired Interface | |
| Media Interface | 1 x RJ-45 UTP |
| Standards | IEEE802.3, 10Base-T; IEEE802.3u, 100Base-TX; Auto-MDI/MDI-X |
| Cabling | Category 5/5e or above, 2-pair |
| Wireless Interface | |
| Frequency | 2.4 to 2.4835 GHz (ISM Band) |
| Standards | IEEE802.11b; IEEE802.11g |
| Encryption | 64/128-Bit WEP, WPA-PSK |
| Data Rate | 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps |
| Output Power | 18 dBm (max) |
| General | |
| Printer Ports | 1 x Parallel Port + 2 x USB 2.0 |
| Management Tools | Server Manager (Windows Application), Web-based management (HTTP) |
| Dimension | 187 * 106 * 30 mm |
| Weight | 280g |
| Power Supply | 12VDC, 1A |
| Emission | FCC / CE |

Chapter2 Hardware Installation

1. Make sure the Print Server and printer are power OFF.
2. Connect printer to the suitable printer port on Print Server.
3. Connect the LAN cable to the RJ-45 port of the Print Server.
4. Connect the other end of the LAN cable to a switch or your PC directly.
5. Power on Print Server and printer.
6. Please make sure the Print Server LAN LED is light on.

NOTE1: MUST use the power adapter shipped with the print server, do NOT use any other power adapter from any sources.

NOTE2: The wireless interface of FPS-3121G is “Disabled” by default. If you want to activate wireless interface, please refer to section 7.11 Wireless to know more information for how to setup wireless interface.

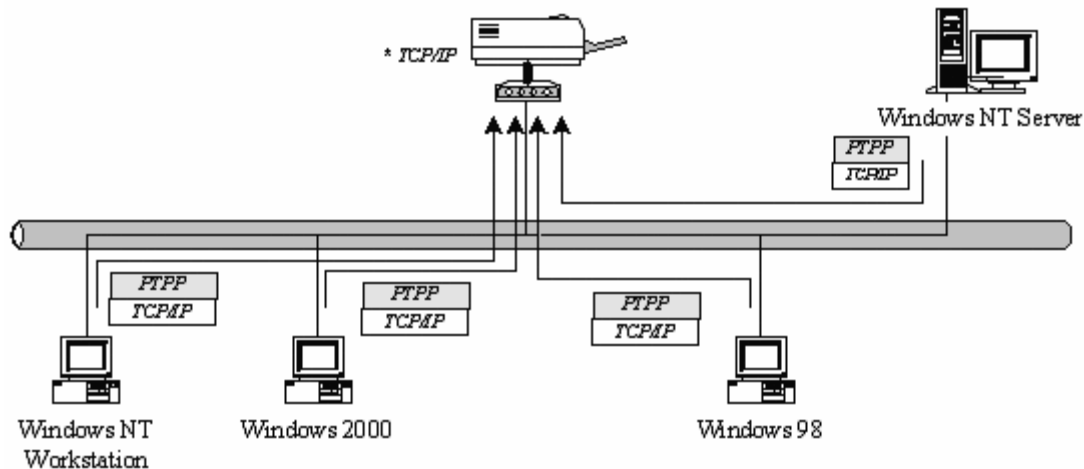
NOTE3: To prevent the compatibility problem between print server and a few printer, it is recommended that you power on the print server before the printer.

NOTE4: Please be sure your printer is not a host-base printer. This kind of printer must be connected to a PC directly, so they cannot work with Print Server. You may check the printer specification or the GDI Printer List in our bundle CD to know this printer can work with FPS-3121G or not.

Chapter 3 Windows Peer-to-Peer Network

3.1 System Architecture

Print server supports Windows Peer-to-Peer network printing mode, which is suitable for most medium and small network environments. Through quick and simple installation procedure, users can immediately enjoy the convenience of network printing.



Installation procedure is separated into following two parts:

1. Administrator Installation and Setup (refer to section 2 for more detailed information).

System administrators must:

- Install administrator's utilities into his/her computer.
- Configure print server from administrator's configuration utility.

2. Client Installation and Configuration (refer to section 3 for more detailed information).

Client users must install Windows PTPP driver (Peer-to-Peer Printing) for network printing.

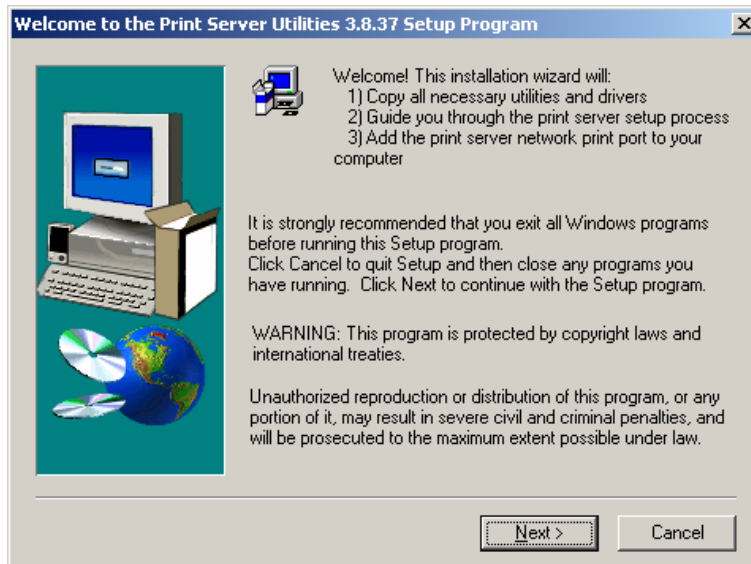
In addition, after PTPP is installed, the system will automatically search for all print servers on the network, and add the printing port of the print servers into Windows' printing port (refer to Network Printing Architecture in section 1.4 for more detailed information).

3.2 Administrator Installation and Setup

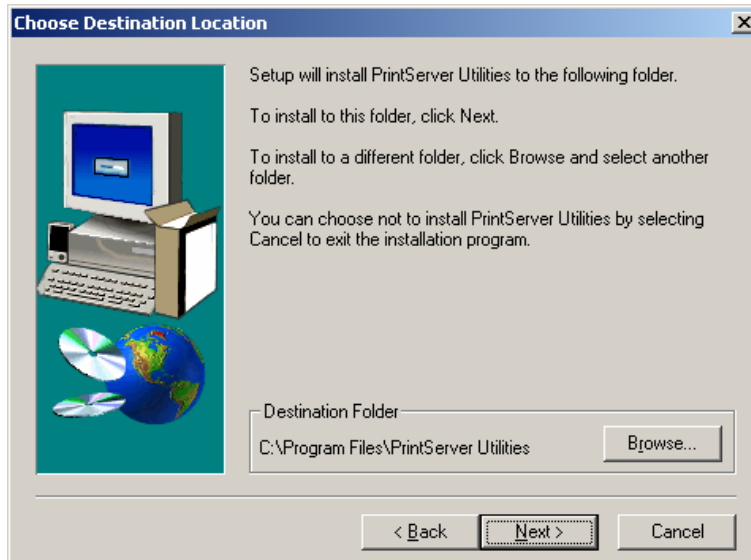
The Administrator Installation can be performed on Windows 95/98/Me/NT/2000/XP/Server2003 with the same user interface. Before the installation, please verify that your network protocol is installed on your PC (TCP/IP, IPX and/or NetBEUI). It will be helpful in your installation process.

1. Insert Drivers and User's Manual CD into the CD-ROM drive to initiate the autorun program. Once completed a menu screen will appear.

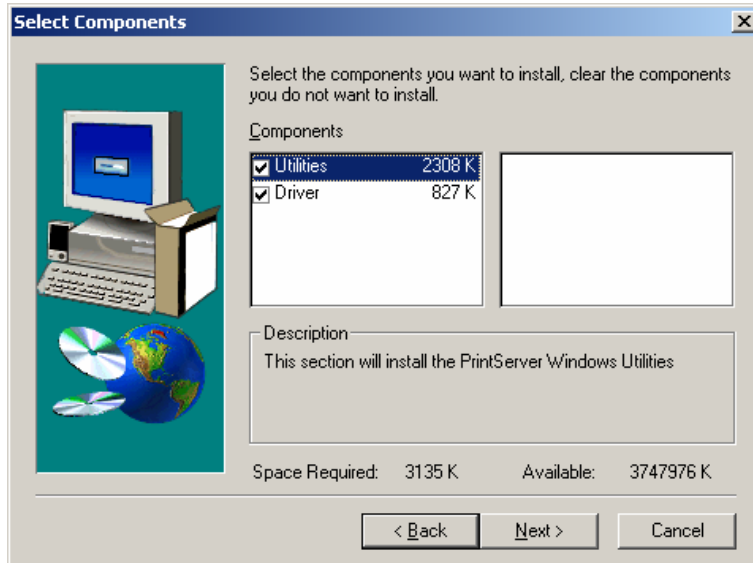
2. Click on "Administrator Installation" hyper link to initiate the installation. Or you can click the "Start" button and choose "Run". (Suppose "E" is your CD-ROM drive). When the dialog box appears, enter "E:\Utility\Setup.exe" and press enter key. You will see the dialog box as below. Please click "Next" to continue.



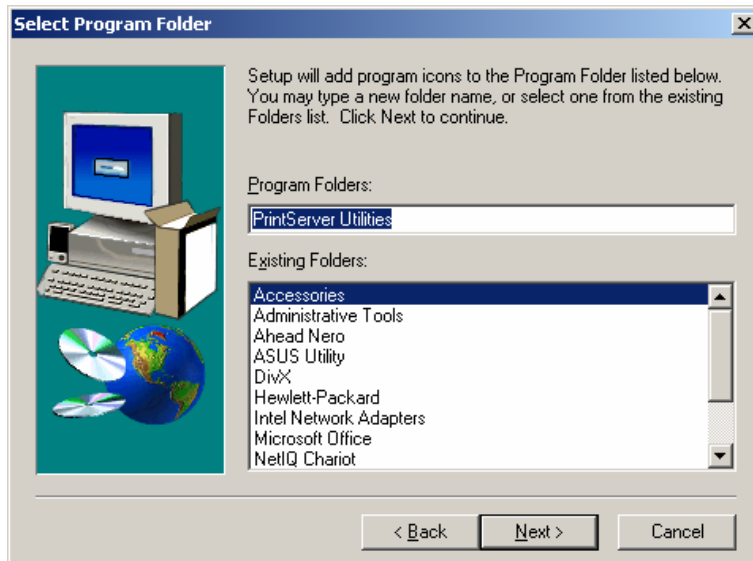
3. Specify the destination folder where the utility will be installed. Click "Next".



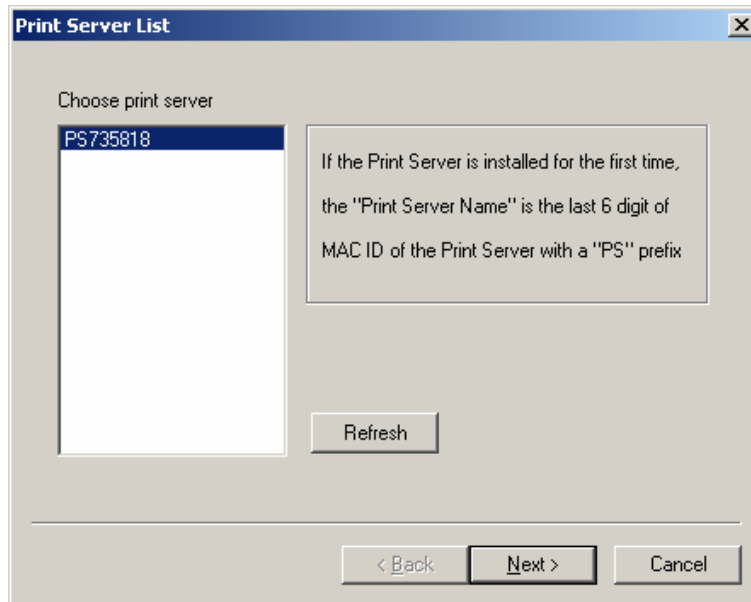
4. Select the components you want to install. It is highly recommended to install all provided components in administrator installation. Please click “Next”.



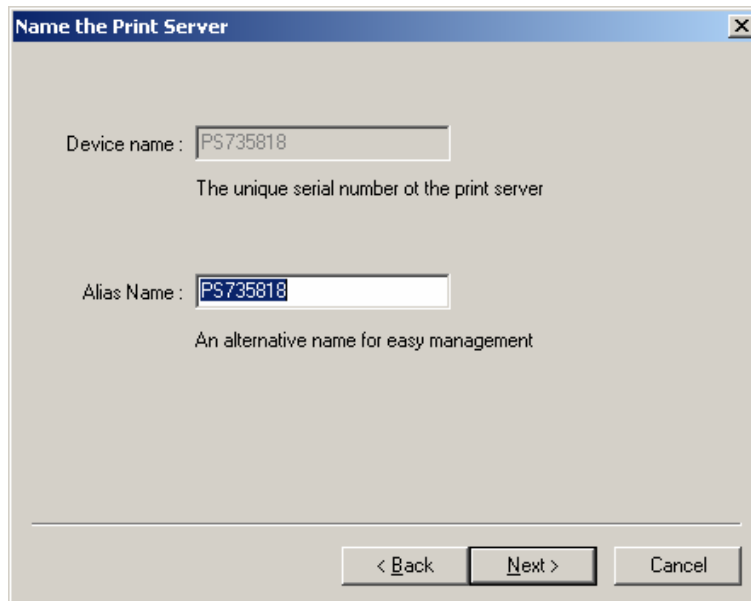
5. Specify the program folder name where the program icons will be add to. Please click “Next” to start installation.



- For a while, the program will finish installing utility and driver you selected. Thus far you have completed the installation phase and prepare to configure the Print Server. The “Choose Print Server” dialog box will be displayed as following. Please select the print server and click “Next”.



- “Name the print Server”, you can assign an easy to memorize name for management. But note that, this name will be the “Identifier” for the Peer-to-Peer Printing.



NOTE: If this is the first time you configure the print server, the “Print Server Name (Alias Name)” will be the same as the “Device Name” printed at the bottom of the print server.

8. In the system default, IPX and NetBEUI are enabled. But the Peer-to-Peer printing is not support those protocols, so it will show those protocols are not supported. About the TCP/IP, you can either assign a fixed IP address for the print server or configure it later by the configuration utility. Please click "Next".

Network Protocol and IP Address Configuration

IPX/NetBEUI
This print server not supports IPX/NetBEUI network protocols.

TCP/IP

Assign the Print Server an IP address
IP Address: 192.168.99.38

Don't change
Configure the IP Address later.

< Back Next > Cancel

9. Configuration summary will display in this screen. Now, you have completed the "Print Server Setup". By clicking "Finish", your system will perform "Add network port" of the print server to your PC.

Add Network Port

Device Name: PS735818

Alias Name: PS735818

IPX support: Disable

NetBEUI support: Disable

TCP/IP support: Enable

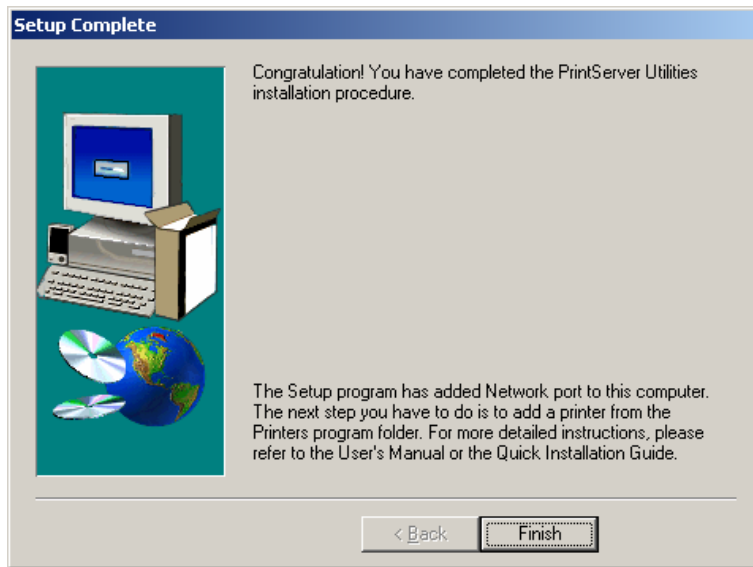
IP Address Assignment: Manual

IP Address: 192.168.99.38

Click "Finish", the program will add the Network Port of the Print Server to your PC automatically.

< Back Finish Cancel

10. The “Setup complete” window is displayed to indicate that the Administrator Installation procedure is finished. Please click “Finish”.



After the installation, you have completed the following tasks.

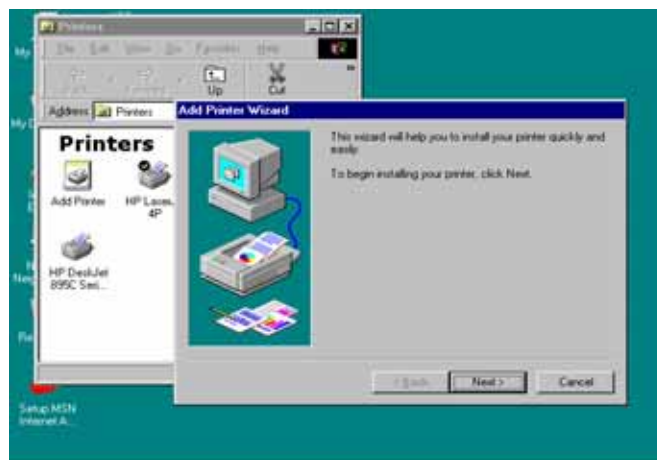
- Install utility and driver to the administrator’s PC
- Configure the print server (including the print server name and IP address)
- Add the network port of the print server to the administrator’s PC

Now, you have completed the administrator’s setup for most of the network environment. You can then perform the “*Client Installation*” procedure (section 3.4) on all client’s sides of the network.

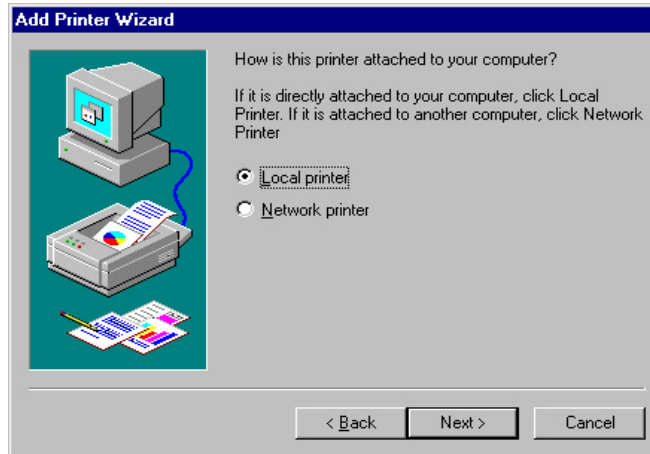
If you want to print from this administrator’s PC to the print server, all you need to do is to perform Windows’ standard “Add Printer” procedure as described below.

Step1. Click “*Start*” button, choose *Setting => Printers*

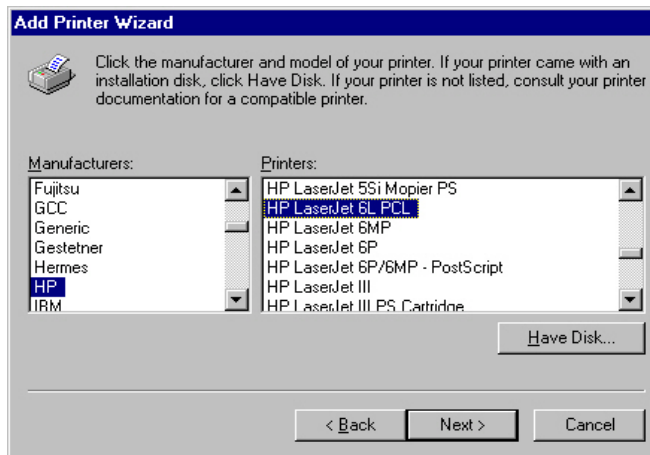
Step2. Double click “*Add New Printer*”



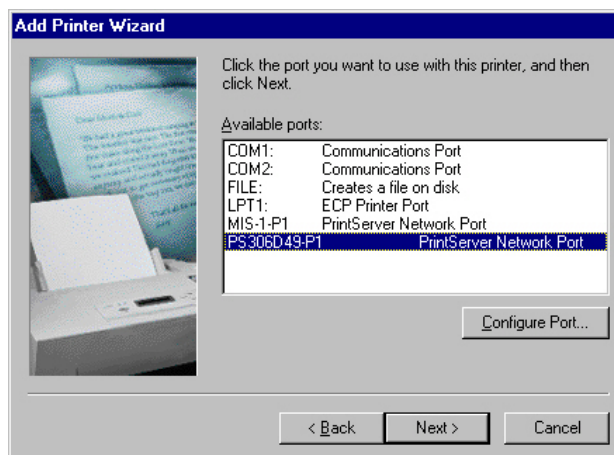
Step3. Select "Local printer" => click "Next".



Step4. Select a suitable printer manufacturer and model, then click "Next".



Step5. Choose the "Print Server's Network Port" which was created by the administrator installation process and click "Next".



Step6. Complete the rest of the questions to finish the network printer setup.

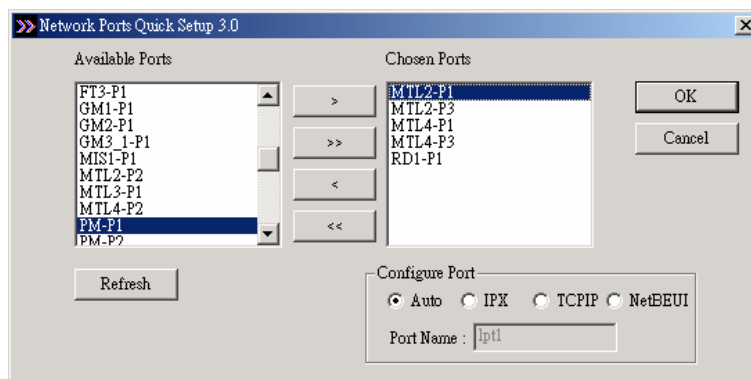
3.3 Administrator Utilities

After Administrator Installation is completed, there will be 4 utilities in print server's Program folder.

1. Network Ports Quick Setup

Network Ports Quick Setup utility offers a very simple method to add or remove print server's printer port from the client's computer.

If you have just installed another new print server on the network, you must run this program first. This program will search for new print servers and allow you to add the new network printer port into client's computer conveniently. Perform the standard Add Printer procedure, and you can print directly to the printer through the newly installed print server.



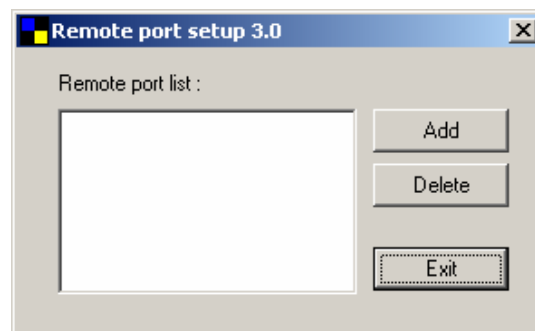
Please be aware that Network Ports Quick Setup utility can only detect and configure all print servers on the same network, it cannot search and configure print servers on other subnets across network segments. You must use Remote Ports utility described in the next section to manage remote (across network segments) print servers.

2. Remote Ports

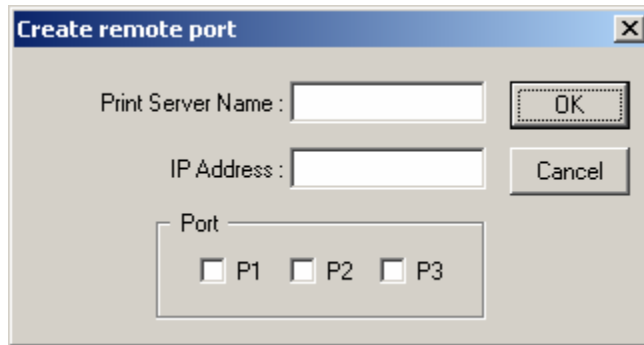
Remote Ports utility offers a convenient way for you to manage and add printer port of the remote print server. From the assistant of this utility, you can print to other print servers outside the subnet across network segment. However, please note that this function only supports TCP/IP network protocol.

Please follow the procedures described below:

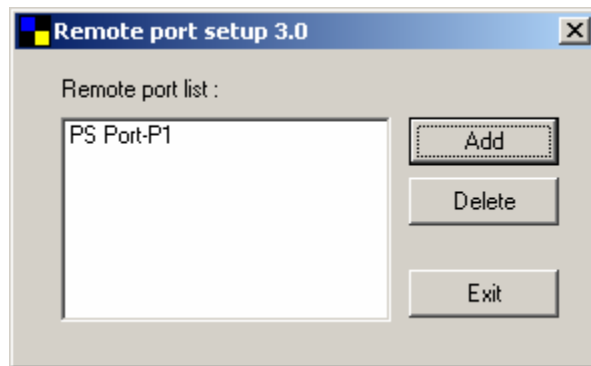
Step1. Run Remote Ports utility. Then press Add button.



Step2. Enter the print server's name, IP address and select the ports you want to add.



Step3. Press OK to add the remote printer port. Then you can find the Print Server port had been add into your computer's printer ports.



In order to use the remote printing function, you will have to proceed with normal Add Printer procedure and select your printer port as the newly added remote printer port.

3. Print Server Configuration

Complete print server management tool (see chapter 7 - Print Server Configuration).

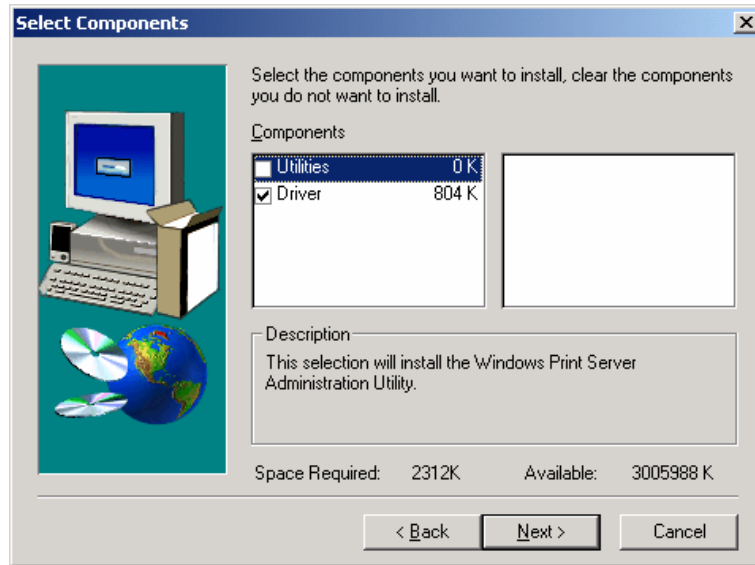
4. Uninstall

Assistant for removing all installed administrator software.

3.4 Client Installation and Setup

The Client Installation can be performed on Windows 95/98/Me/NT/2000/XP and Serve2003 with the same user interface. Before the installation procedure, please confirm that your PC has connected to the network and installed at least one network protocol.

The installation is the same as Administrator Installation, besides the step 4. Please unselect "Utility" option and press "Next" to continue.



Clients just need to install Peer-To-Peer driver, so it is no need to install the Configuration Utility to the client PC.

Chapter4 Windows Network

4.1 System Architecture

In Windows network environment, other than the Peer-to-Peer network printing architecture described in the previous chapter, we also offer the Server-Based Printing architecture for Windows NT/2000/XP/2003 server. Only one Windows NT/2000/XP or 2003 Server is required to have Windows PTP (Peer-to-Peer) driver installed and share the printing service on the network. Other network users can simply connect to the server and access the shared printer. (see below)

4.2 Windows Server Installation and Setup

Please follow the procedures described below for installation and construct a peer-to-peer connection (PTP) between Windows NT/2000/XP/2003 Server and Print Server.

Step1.

Please install the administrator software on Windows Server. You may refer to section 3.2 for installation instructions.

Step2.

Please add/configure the Peer-to-Peer Printing of the Windows network printer and verify that you can print from Windows Server to the print server by the installed PTP driver.

Step3.

Share the Windows Server's printer to the network by performing the standard Windows printer sharing process.

4.3 User Installation and Setup

After server side's installation is completed, client side will be able to find the server's shared printer in Network Neighborhood. You only need to perform Window's standard **Add New Printer** procedure, select "**Network Printer**" shown in the screen below, and complete the configurations afterwards to access the shared printer.

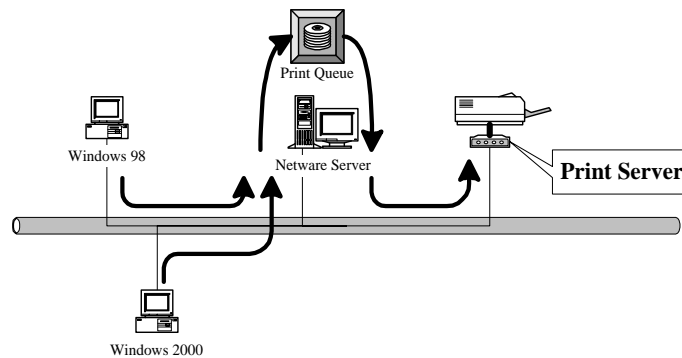


Chapter 5 NetWare Network

5.1 System Architecture

We implement NetWare print sharing functionality into the print server itself, thus allowing one or more printers attached by a print server to be connected to the network.

Embedded print server, which emulates the “queue management functionality” of NetWare print server, PSERVER program running on the NetWare server. A user first prints a job at a workstation, the job is routed to a NetWare server, the NetWare server stores the job in a print queue, then the print server gets the print job from the queue to printers.



Compare with NetWare printing functionality, the advantages of embedding the NetWare network printing functionality in the print server include:

- Installation is easier and quicker
- Network management is easier
- Printing performance is enhanced
- Relieve NetWare file server's burden
- Relieve the need of a workstation running the remote printer utility
- Improve productivity by locating the printer near the workgroup

Each print server should log into a NetWare server before servicing the print jobs. Each print server will occupy a user account with which it can log into the NetWare server.

5.2 NetWare 3.x/4.x/5.x Installation & Setup

Once your print server is connected to your Ethernet network, you can set it up for use with our configuration utility.

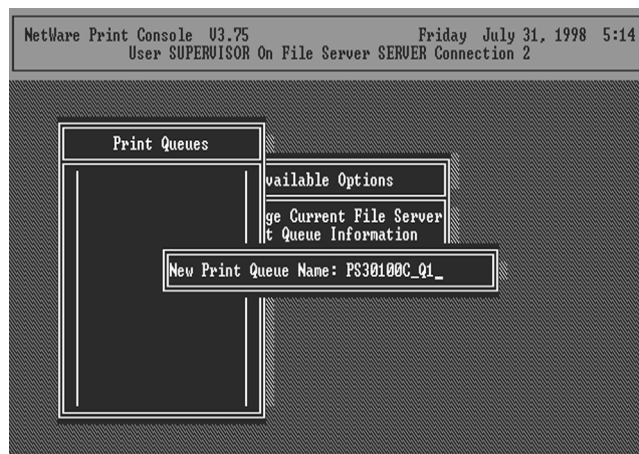
Please note that, you need to install the IPX protocol before the following procedure.

1. Run NetWare's PCONSOLE program to create a NetWare print server and print queue with the appropriate names.

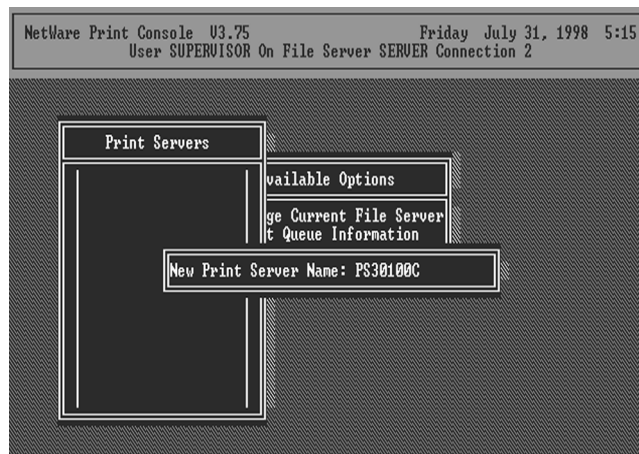
2. Refer to section 7.7 and use print server configuration utility, to configure print server attach to NetWare server print queue. Print server will get the print job from the print queue and print.

5.2.1 Installation with Pconsole

1. Run the NetWare PCONSOLE program.
2. Change the current file server, if necessary, using the Change Current File Server menu selection.
3. Choose the Print Queue Information menu selection.
4. Press the Insert key to add a new print queue.
5. Type in a print queue name, such as "PQ" or "Q1".

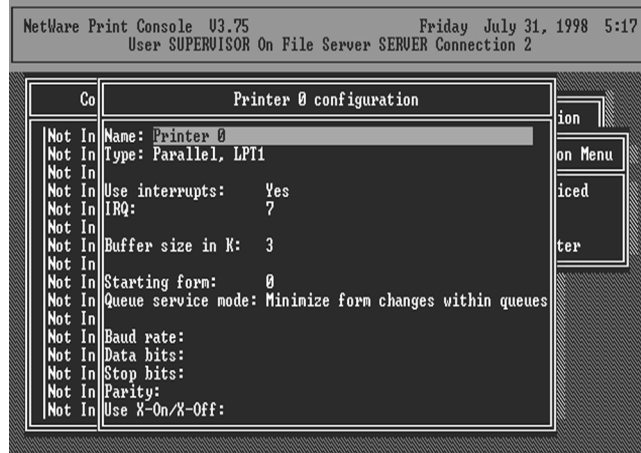


6. You have now successfully created the print queue that your print server will serve. Press the Escape key until the Available Options main menu is displayed.
7. Select Print Server Information.
8. Press the Insert key to add a new NetWare print server object. The print server name can be identical to the PSxxxxxx name printed on the label of the print server.

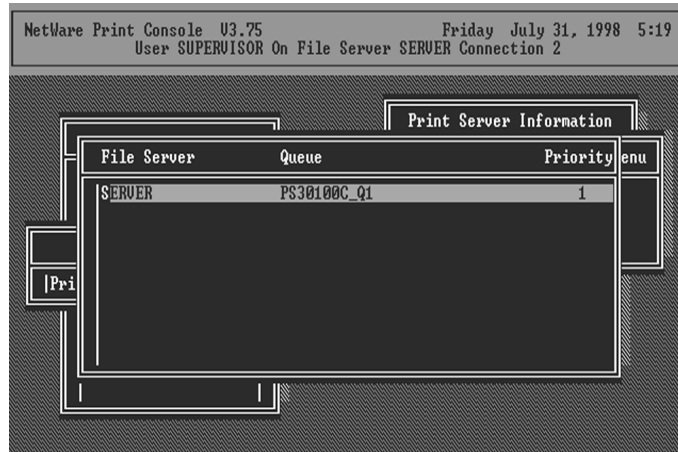


9. Press Enter to select the newly created print server.
10. Select Print Server Configuration.

11. Select Printer Configuration.
12. Select Printer 0 (or Printer 1, Printer 2), and press Enter, then select Parallel LPT1 (or LPT2, LPT3) in the Type field. If your print server is with only one port, you do not need to configure this Type field.



13. Press Escape, and answer Yes to the Save Changes question.
14. Select Queues Serviced by Printer, then select Printer 0 (or Printer 1, Printer 2) and press Enter.
15. Press *Insert* key and add your newly created print queue to the list of queues serviced by the printer. Enter a priority number for the queue service, or press Enter to accept the default.



16. Repeatedly press Escape to exit the PCONSOLE program.
17. After setup the NetWare server. Please write down those settings and refer to section 7.7 to enter the settings of print server.

NOTE: If the print server you have is with multiple printer connectors, you may create multiple print queues and printer objects.

Your print server should now be ready to use. You should be able to redirect printing to your print server using a CAPTURE command such as the one shown in the previous section.

Chapter6 UNIX System Network

6.1 Introduction

The print server is available for TCP/IP printing by Unix LPD (Line Printer Daemon) protocol. The LPD protocol originated with Unix release is based on the BSD version of Unix and supported under most versions of Unix.

This chapter explains how to configure the print server for TCP/IP operation, and how to modify configuration files on your Unix system to allow printing to the print server. The configuration examples in this manual follow the syntax for BSD based Unix systems. Please refer to the related system documentation for the correct syntax of your systems.

To configure the print server for LPD printing, perform the procedures below:

1. Enable Print Server's TCP/IP Support.
2. Set up Print Server's IP address.
3. Verify Print Server's IP Address.
4. Configure remote LPD printing on the host.
5. Print a test page.

In the next sections, we will describe these five procedures step by step.

6.2 Enable Print Server's TCP/IP Support

The default configuration of the print server is with TCP/IP support enabled. Anyway, you can configure the print server to enable TCP/IP support using the configuration program or PSETUP program in our CD-ROM included with the Print server.

6.3 Setup Print Server's IP Address

The print server must have a unique IP address in order to be recognized by the network. You can set up the IP address on the various Unix systems using any one of the following methods:

1. DHCP (Dynamic Host Configuration Protocol)
2. BOOTP (Bootstrap Protocol)

The print server will use the last three methods to obtain its IP address automatically if its IP address is configured as Auto (0.0.0.0).

6.3.1 DHCP

There are many Unix systems that support DHCP protocol, and the procedures to configure the DHCP server database are different. This manual does not describe the DHCP server configuration on the Unix systems. It is highly recommended that the DHCP server should be located on the same network as the print server.

6.3.2 BOOTP

If you have the BOOTP daemon, bootpd, running on your UNIX system that is accessible by the print server, you can use the BOOTP protocol to set up the IP address of the print server. We

recommend that the BOOTP server should be located on the same subnet as the print server. If you use Network Information Services (NIS) in your system, you may need to rebuild the NIS map with the BOOTP services before doing the following BOOTP configuration. To rebuild the NIS map, please refer to your system documentation.

To configure the IP address data for the BOOTP server, you will need to log in the host of BOOTP server as the superuser (root). Perform the following steps to add address entries.

1. Optionally, assign a name corresponding to the print server's IP address. You can add this address to the `/etc/hosts` file, by adding a line such as:

```
203.66.191.12      pserver
```

2. Add an entry to the host's `/etc/bootptab` file, similar to the following:

```
hostname:\

:ht=1:\

:ha=print_server_ethernet_address:\

:ip=print_server_ip_address:
```

Lines should be indented with tabs.

Where `hostname` is the device name of a print server, the `ht=1` tag specifies the hardware type is Ethernet, the `ha=` tag specifies the Ethernet address of a print server, which is the Node ID located on the print server. The `ha` tag must be preceded by the `ht` tag. The `ip=` tag should correspond to the IP address you want to assign to the print server.

For example, a print server with the following configuration:

Node ID: 00304F010101 (this implies Ethernet
address is 0304F010101),
IP address: 203.66.191.12

The entry for this print server in the `/etc/bootptab` file should be:

```
PS010101:\

:ht=1:\

:ha=00304F010101:\

:ip=203.66.191.12:
```

6.4 Verify Print Server's IP Address

To verify that your print server is responding to the newly assigned IP address using a PING command:

```
ping ip-address
```


6.5 Configure Remote LPD Printing on the Host

The procedure you use to configure your Unix host(s) to allow printing to your network remote print server varies between different varieties of Unix. The procedure below can be used for Unix variants that are related to BSD Unix, such as SunOS or Linux. For other versions of Unix, consult your system documentation, keeping in mind that:

1. The print server should be treated as a BSD networked print server host.
2. The host name should be the name (or IP address) that you have assigned to the print server.
3. The printer name (or queue name) on the remote host should be lpt1, lpt2 or lpt3, the name of the printer port on the print server.

You will need to perform the tasks below, logged in as the superuser (root). To configure your Unix host for printing,

1. Optionally, assign a name corresponding to the print server's IP address. You can add this address to the /etc/hosts file, by adding a line such as:

```
203.66.191.186      pserver
```

2. Create a spool directory for the printer in the same directory where spool directories are normally kept on the machine, such as /var/spool or /var/spool/LPD:

```
mkdir /var/spool/LPD/pserverd
```

```
chown daemon /var/spool/LPD/pserverd
```

```
chgrp daemon /var/spool/LPD/pserverd
```

```
chmod 775 /var/spool/LPD/pserverd
```

3. Add an entry to the host's /etc/printcap file, similar to the following:

```
printer-name:\
```

```
:lp=:\
```

```
:rm=203.66.191.186:\
```

```
:rp=lpt1:\
```

```
:lf=/var/spool/LPD/pserverd.log:\
```

```
:sd=/var/spool/LPD/pserverd:\
```

```
:mx#0:
```

Lines should be indented with tabs. More than one printer name can be used, with variants separated by vertical bars (name1|name2).

The `rm=` entry should correspond to the IP address you have assigned to the print server. You can also use a host name if you have assigned one in the `/etc/hosts` file.

The `sd=` entry should correspond to the spool directory you created in the previous step.

The `rp=` entry should correspond to the port name of the remote printer. The values should be one of `lpt1`, `lpt2` or `lpt3` depends on the printer port.

The print server should now be available for printing from your Unix host.

Chapter7 Configuration Utility

7.1 Introduction

This chapter introduces print server's system configuration utility in Windows environment. This utility is automatically installed during Windows Administrator Utility installation procedure - refer to section 3.2 and 3.3.

This utility provides the most complete management and configuration functions on the print server side. This utility only provides configuration functions for print server itself; it does not include configuration functions for client side or other file server or NetWare server in the network environment.

The Configuration Utility provides the following configuration and management functions:

Search Print Server: Search all available Print Servers on the network

Print Server Status: Print Server network status

General Configuration: General Information of print server

TCP/IP Configuration: IP Address and DHCP Server configuration

NetWare Configuration: NetWare printing configuration

AppleTalk Configuration: AppleTalk protocol setting

Rendezvous Configuration: Apple Rendezvous setting

SNMP Configuration: SNMP monitor configuration

System Configuration: Print Server network ability setting and firmware upgrade

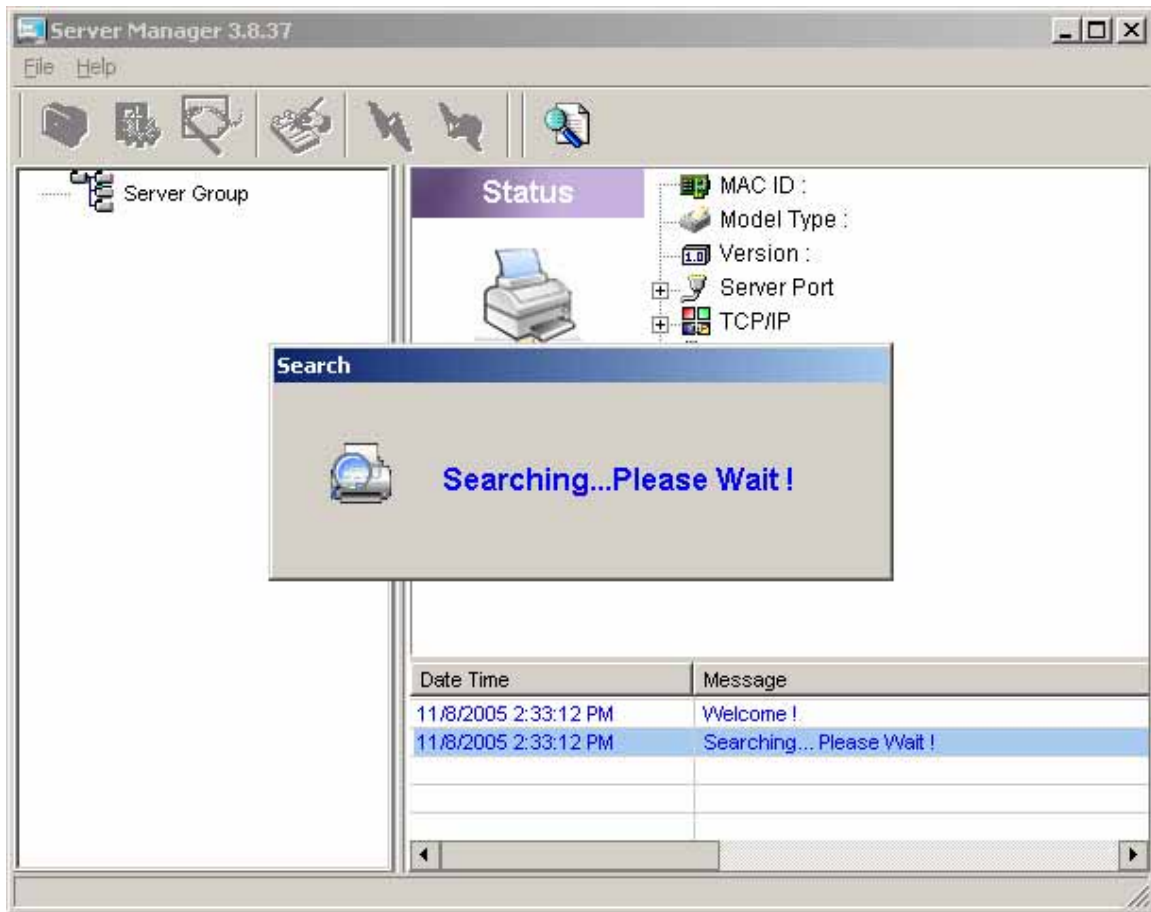
Wireless Configuration: Wireless LAN Configuration


Setup Wizard: Guide you through all the settings

Report: Shows the information of all available Print Servers on the network

We will explain each function separately in the following section.

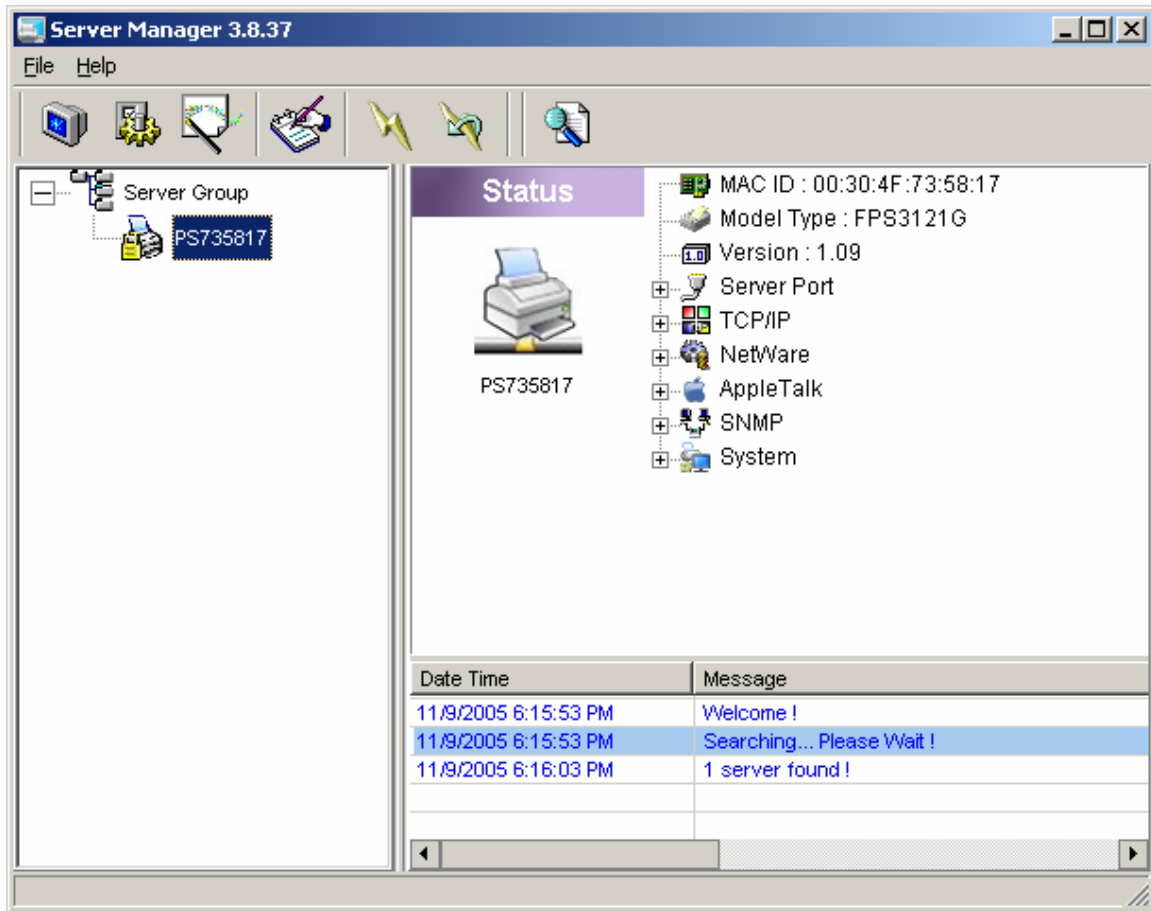
7.2 Search – Search for All Available Print Server




Every time when you start print server's configuration utility, or click the "Search" icon  on the tool bar. The configuration utility will delay for several seconds because the utility is using system's available network protocols to search all print servers on the network. All available print servers will be listed under "Print Server Group" on the left side of the window.


You must select the print server you would like to configure from the list. The system will, at the same time, display the selected print server's status on the right side of the window.


7.3 Status - Status of Print Server



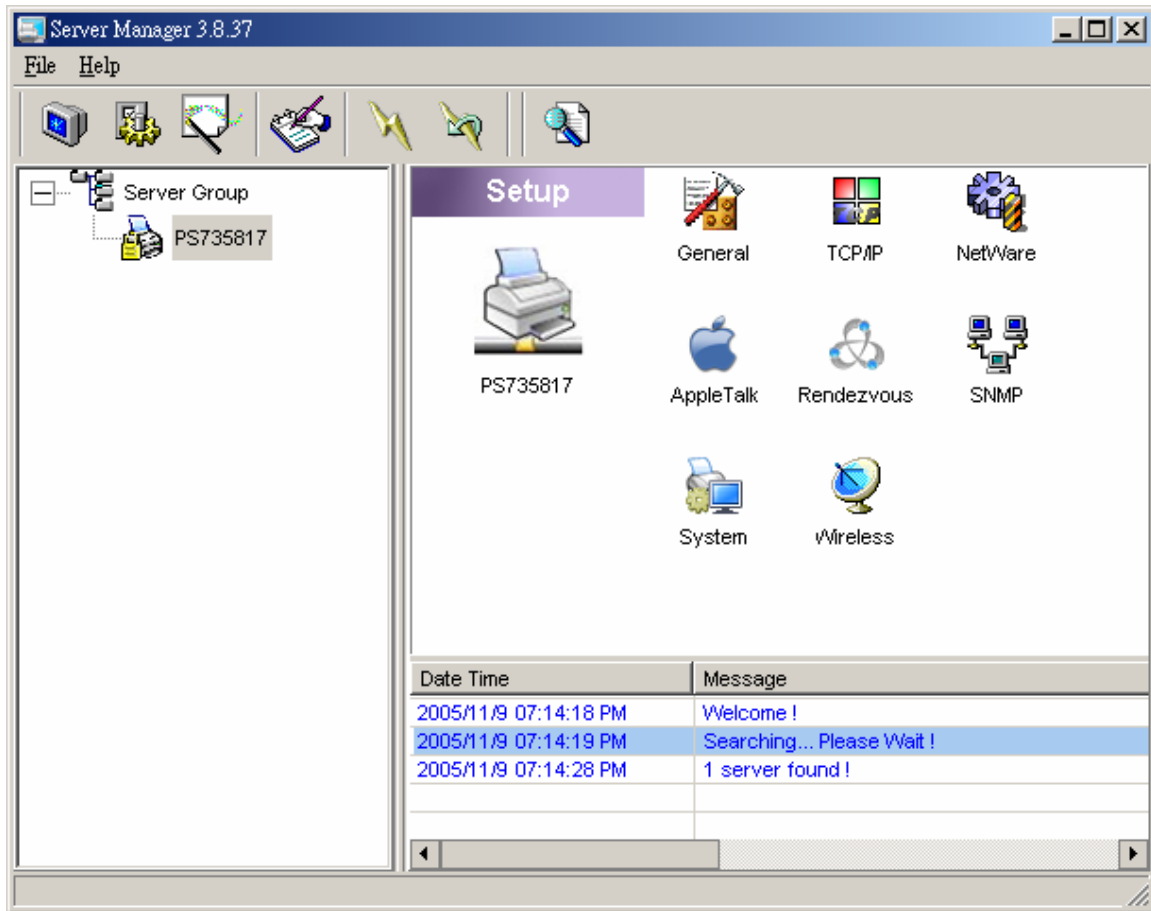
Click "Status" icon  on the tool bar, the status of the current selected print server will be showed on the right side of the window.


The information of the print server displayed are MAC ID, model type, firmware version, status of each printer port, NetWare file server name, NetWare file server polling interval, NetWare printer queue names, IP address, subnet mask, default gateway, AppleTalk printer type, AppleTalk zone and print server printing ability...etc.

You can refresh the print server's status by pressing the "Refresh" icon .

You can restart the print server by pressing the "Reboot" icon .

7.4 Setting up the Print Server



Click "Setup" icon  on the tool bar, the setup items of the current selected print server will be showed on the right side of the window.

You can modify all settings of the print server here.

When you first time into one the configure options, system will ask you enter User Name and Password. The default User Name and Password are "admin".

The screenshot shows a 'Login - PS735817' dialog box. It contains two input fields: 'User Name :

7.5 General Configuration

General - PS735817

General

General Settings

Device Info

MAC ID : 00:30:4F:73:58:17
Type : FPS3121G
Version : 1.09
Port No : 3

Server Name : PS735817

SMB Group Name : WORKGROUP

Set User Name/Password

User Name : Password : Retype Password :

Save Cancel

Double Click "General" icon and the General configuration window will pop-up.

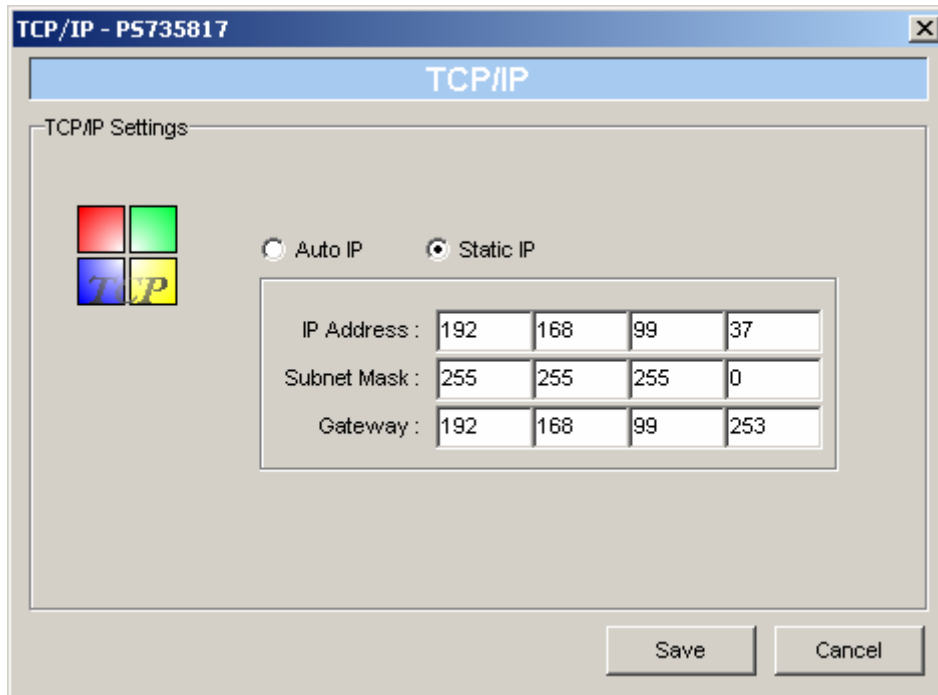
You can see basic print server information in this page. You also can configure the "Print Server Name", "User Name" and "Password" here.

Printer Server Name: Name of the print server. You can use this name to identify the print server when you are searching for the print server by the administration and client utilities.

SMB Group Name: Name of your network. PCs can find this printserver in Network Neighbor and attach to this printserver as a Network Printer when they are in the same Workgroup

User Name / Password: You can change the User Name and Password as your mind. Before changed, it will keep use default value.

7.6 TCP/IP Configuration



Double Click "TCP/IP" icon and the TCP/IP configuration window will pop-up.

If there is a DHCP Server in your LAN. You can configure the print server to automatically obtain an IP address from DHCP server. Or you can manually specify a static IP address to this print server .


If you need the print server to automatically obtain an IP address from LAN DHCP server, select "Auto IP". Or you can select "Specify IP" to manually assign "IP Address", "Subnet Mask" and "Gateway" for the print server.

7.7 Netware Configuration

NetWare - P5735817

NetWare

NetWare Settings

 Polling Time : 3 (Sec.)

Queue Serviced By Printer

Port 1 : PQ1

Port 2 : PQ2

Port 3 : PQ3

File Server to be serviced

NetWare Server : fs

Save Cancel

Double Click "NetWare" icon and the NetWare configuration window will pop-up.

This print server supports NetWare Bindery Printing method. The print server periodically polls the NetWare server printer queues for printing jobs. You have to assign the NetWare server name, print server polling interval and the name of queue on the NetWare server for each printer port.

Polling Time is the polling interval of the print server for waiting printing jobs on the NetWare server. Default is 3 seconds.

Attached Queue is the name of the printer queue on the NetWare server. The printer queue keeps all printing jobs waiting on the NetWare server. You have to assign a printer queue for each printer port of this print server.

NetWare Server is the name of the NetWare file server that provides printer queues.

7.8 AppleTalk Configuration



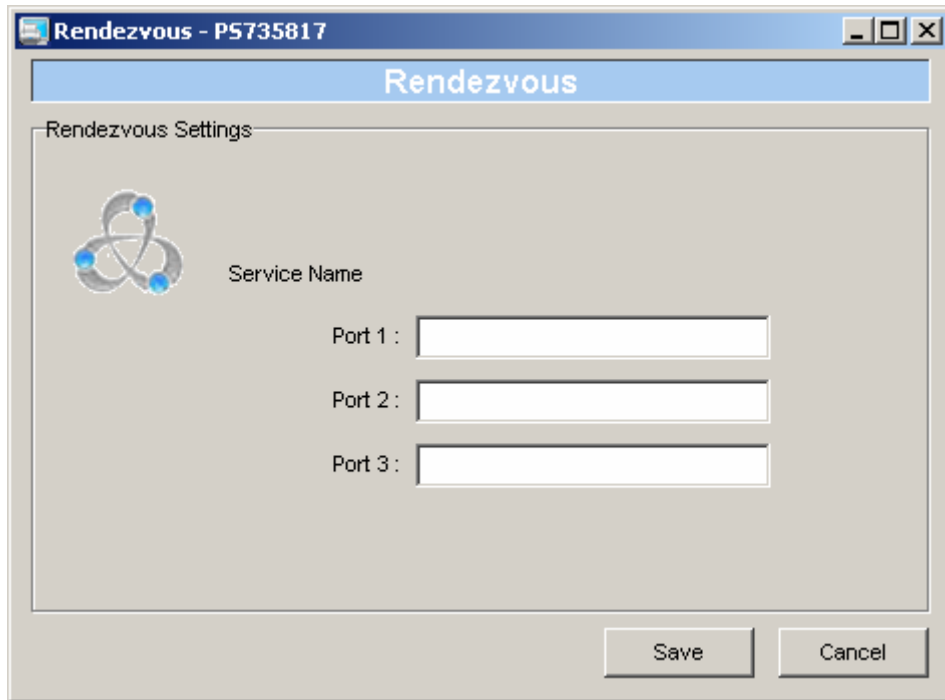
Double Click "AppleTalk" icon and the AppleTalk configuration window will pop-up.

AppleTalk is a data communication protocol often used by Macintoshes. The print server can use these parameters to join the AppleTalk network and share the printer to other AppleTalk workstations. You have to setup the "Zone Name" and "Printer Type" for each printer port of this print server.

Zone Name: Print server has to join zones of AppleTalk before it can be shared to other workstations. Only workstations in the same zone can share the printer. If you want to share the printer to all workstations in all Zones, you should enter only "*" in the "Zone Name" field.

Printer Type, the type of printer attached to each printer port. You can get the printer type from the manufacturer of the printer.

7.9 Rendezvous Configuration



The latest version of MAC OS provides a new feature that is called **Rendezvous**. Rendezvous is a revolutionary networking technology standard that lets you create an instant network of computers and devices, which can be used throughout Mac OS 10.2 to provide innovative ways to share files and printers and even contact other people on the network.

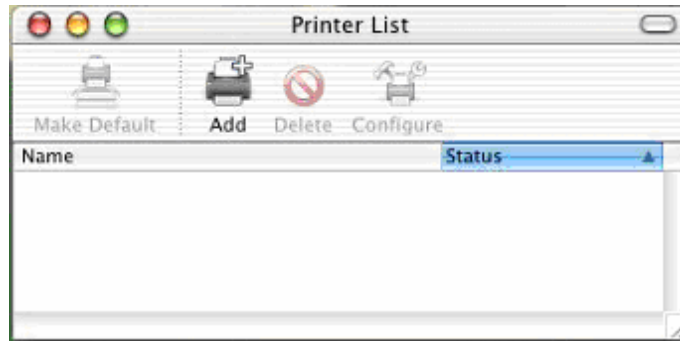
Port Name is the name of the printer port. Each printer port has to be assigned a name. The client utility uses this name to access the printer port.

7.9.1 Rendezvous Uses in MAC OS 10.2

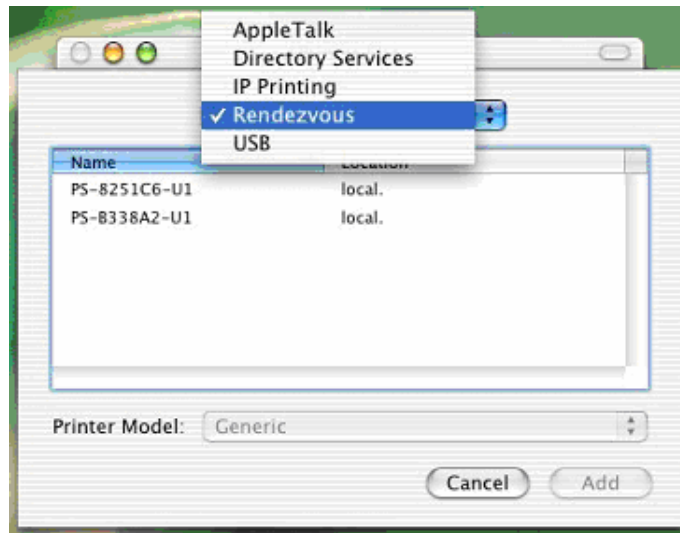
For the printer connection, the Mac OS 10.2 Print Center application uses Rendezvous to discover Rendezvous-enabled printers on the network. When you add your computer to a network, Print Center automatically discovers the available printers. All you have to do is selecting the one you want to use and then start printing. You can add a new printer to the network and all the users on the network will see the new printer automatically appear in their Print Center, without any configuration.

The following instructions provide a common procedure of installing the printer:

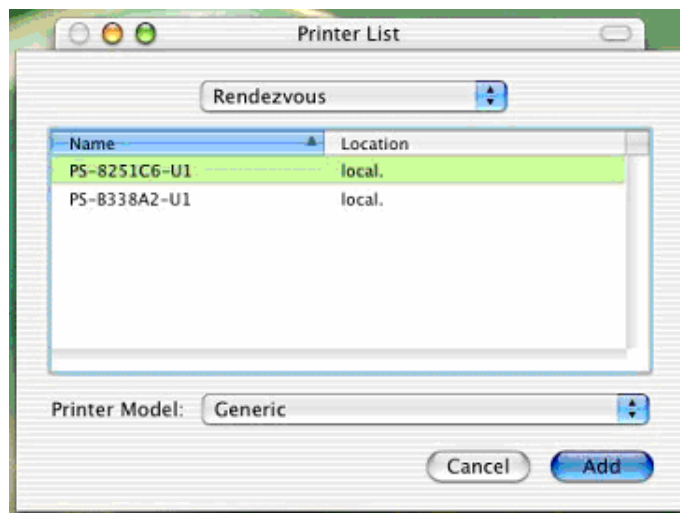
1. Launch Print Center. Press and hold the Option key, click the **Add** button.



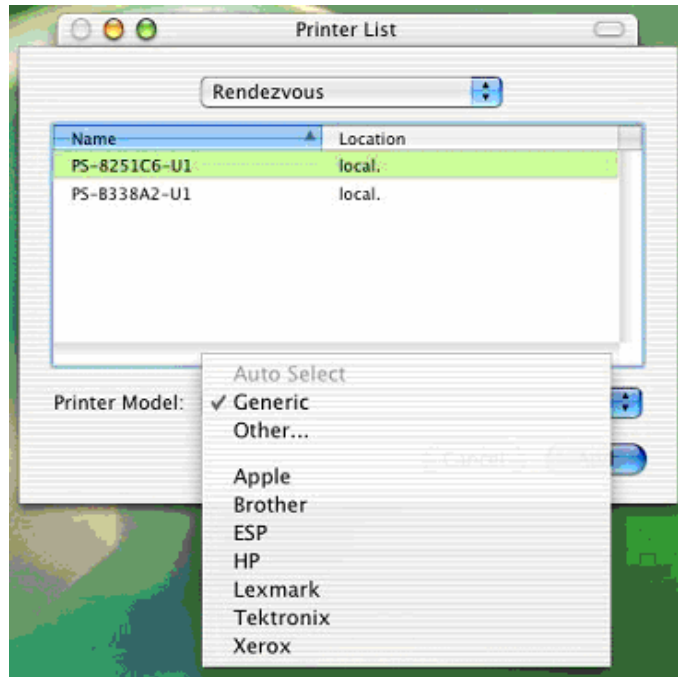
2. Select **Rendezvous** from the pop-up menu.



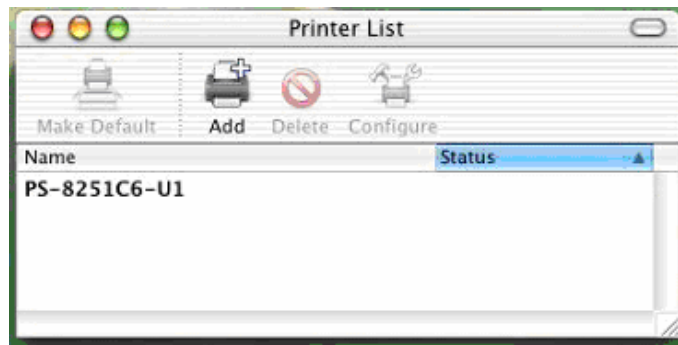
3. When clicking the **Rendezvous** item, the following window appears to display the connected Rendezvous-enabled printers.



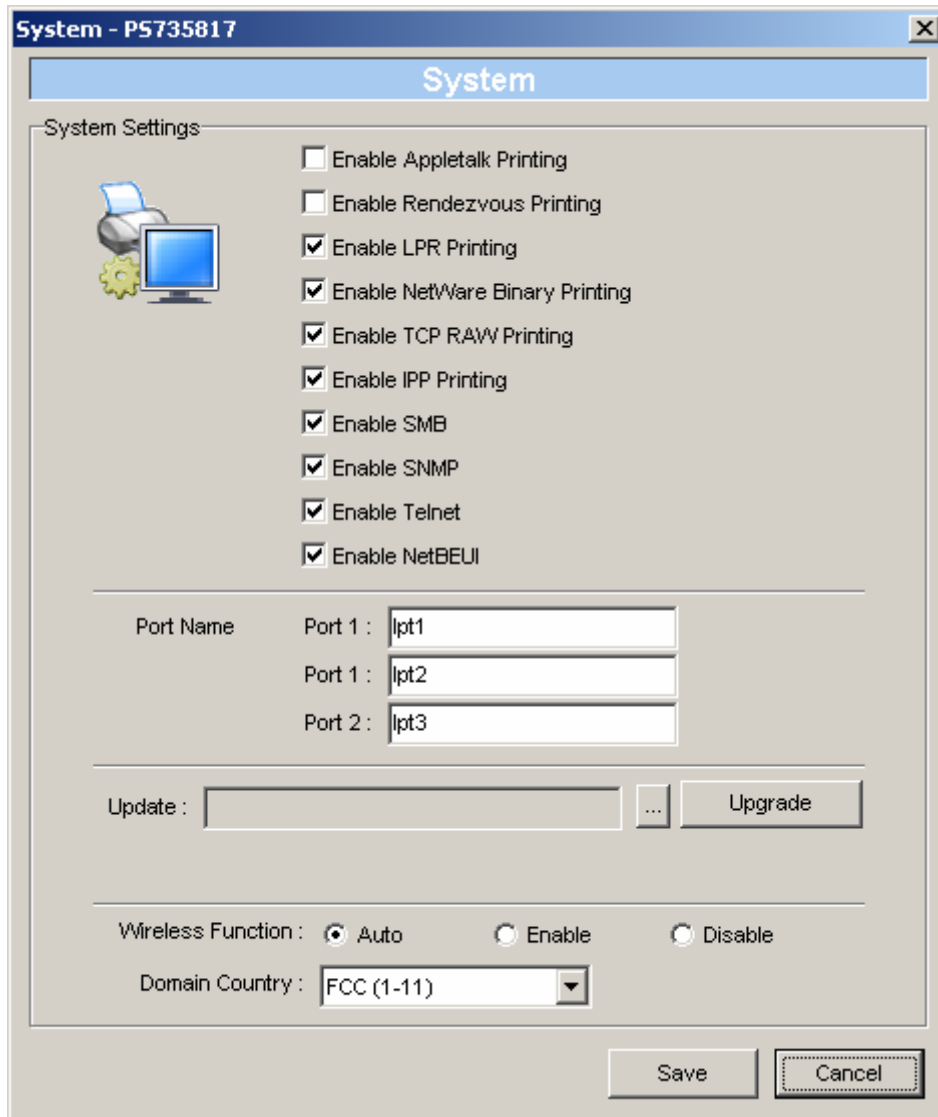
4. Select the desired printer, and the following pop-up menu displays the printer's manufacturer. Select **Generic**.



5. The printer is installed into the system successfully.




7.10 System Configuration



Double Click “System” icon and the System configuration window will pop-up.

In the System configuration page, you can select to enable/disable each printing protocol, assign name for each printer port of this print server and upgrade the new firmware for this print server.

Port Name is the name of the printer port. Each printer port has to be assigned a name. The client utility uses this name to access the printer port.

Upgrade Firmware: You can use this “Upgrade” tool to update the newest firmware of the print server. Click  button and select the correct firmware in you PC’s storage. After selecting the firmware file, click the “Upgrade” button and wait for finish the firmware update process.

Wireless Function: You can select “Enable” or “Disable” to manually enable or disable the wireless function. If you manually enable wireless function, the print server wireless interface will be always enabled and Ethernet interface will always disabled, and vice versa. You also can select “Auto” to let the print server automatically decide to enable or disable the wireless function. The print server only can work in either Ethernet or Wireless interface. It cannot work in both

interface at the same time. When the print server starts up, it will auto-detect the LAN port is connect to a network device or not. If the print server is connected to an active network by Ethernet cable when starting up, the print server will run with Ethernet interface. If the print server LAN port is not connected when starting up, the print server will run with wireless interface. This setting is "Disable" in default.

Domain Country: Please select the suitable Domain of your country for wireless operation.

7.11 Wireless

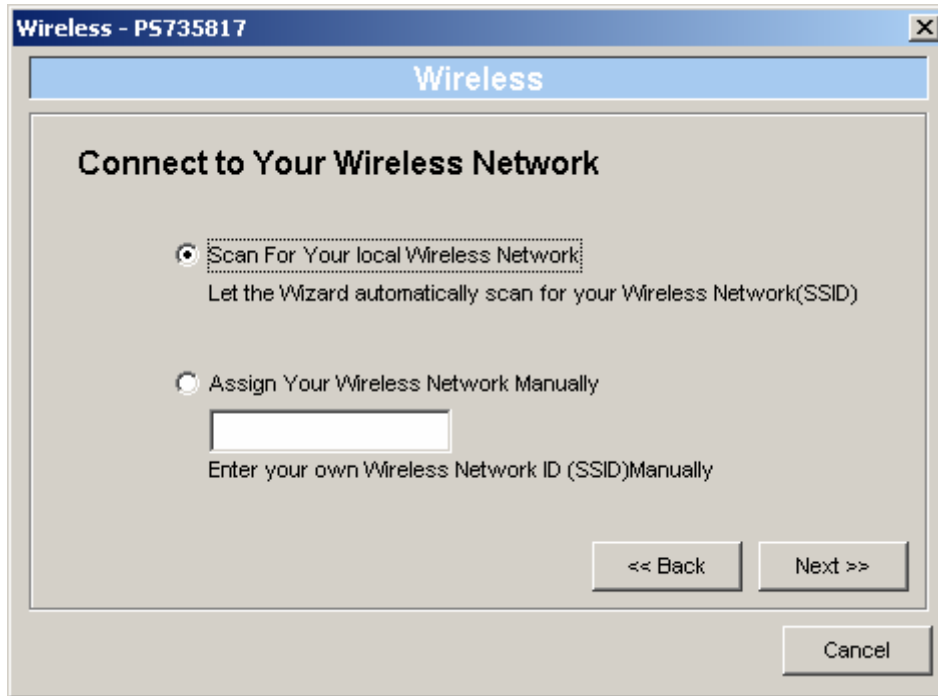
Due to wireless interface is "Disable" in default. If you want to use the print server through wireless interface, please set up the print server through Ethernet firstly and make sure your wireless LAN settings are correct and Wireless Function is set to "Auto". After configure the wireless LAN settings, unplug the Ethernet cable and power off/on the print server, then you can start to use the print server via wireless interface. If the wireless configuration does not work, please plug the Ethernet cable again, restart the print server and configure the print server through Ethernet until the wireless LAN settings are correct. When the Wireless interface work correctly, if you don't need to work with Ethernet interface, you may change the Wireless Function to "Enable" to disable Ethernet interface.



You may select either Infrastructure Mode or Ad-hoc Mode for this printserver to join your wireless network.

7.11.1 Infrastructure Mode

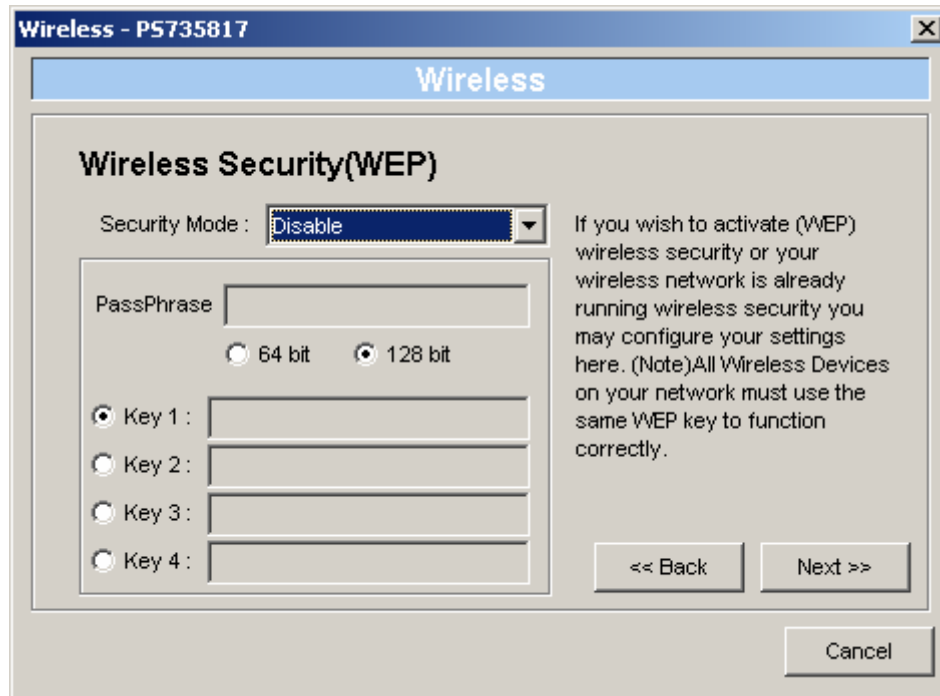
1. If you are select "Infrastructure Mode" and click "Next" in section 7.11, you will see the dialog box below. You can select first option to scan your wireless network to search the Access Point that you want to connected. Or you can select the second option and enter the SSID you had known into the field. Please choose one of them and click "Next".



2. When you are select first option to continue, you will see this screen for scan the wireless network. Please select the wireless device that you want to connect and click "Next". If you don't have see the wireless device that you would like to connected, please click "Scan" to search again.

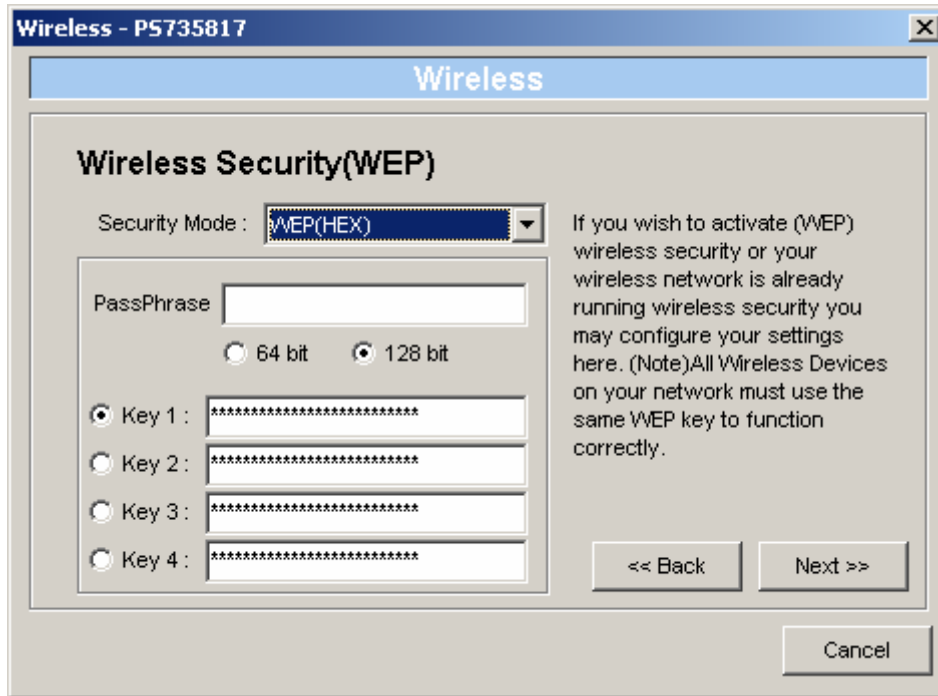


3. This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP(ASCII)" or "WEP(HEX)". If you want to use WPA-PSK, you have to select "WPA-shared key". The wireless security setting should be the same with other wireless devices in the same network.



WEP Security Mode:





You can select “64 bit” or “128 bit” length and “Hexadecimal” or “ASCII” format for the encryption key. Longer key length can provide stronger security but worth communication performance. Enter four key values by following the rules below and select one key as the default key.

- PassPhrase – A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server. This setting is only valid when the security mode is in “WEP (HEX)”.
- Key 1 to Key 4 – If the key length is 64-bit, enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: “0123456aef” or “Guest”.
If the key length is 128-bit, enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: “01234567890123456789abcdef” or “administrator”.

WPA-shared key Security Mode:



When “WPA-shared key”, also named “WPA-PSK” requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Algorithms – WPA Algorithms gives two encryption methods, TKIP and AES, with dynamic encryption key. Select the type of algorithms, TKIP or AES.
- Shared Key - Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click “Next” to go to next step.

4. You can select to let the print server automatically obtain IP settings from DHCP Server or manually assign the IP settings.
If you manually assign the IP settings, you have to enter IP address, subnet mask and default gateway address. When you finish configuring the IP settings, click "Next" to confirm the IP Address configuration.

The screenshot shows a window titled "Wireless - PS735817" with a sub-header "Wireless". The main heading is "Configure Your Adapters IP Address". There are two radio button options: "Automatically Obtain IP Settings(DHCP)" and "Set Your IP Manually". The "Set Your IP Manually" option is selected. Below this, there are three rows of input fields for IP Address, Subnet Mask, and Gateway, each with four columns. The values entered are: IP Address: 192, 168, 99, 37; Subnet Mask: 255, 255, 255, 0; Gateway: 192, 168, 99, 253. At the bottom right, there are buttons for "<< Back", "Next >>", and "Cancel".

| | | | | |
|---------------|-----|-----|-----|-----|
| IP Address : | 192 | 168 | 99 | 37 |
| Subnet Mask : | 255 | 255 | 255 | 0 |
| Gateway : | 192 | 168 | 99 | 253 |

5. Please click "Save" to save the wireless configuration.

The screenshot shows a window titled "Wireless - PS735817" with a sub-header "Wireless". The main heading is "Setup Status Summary". The text displays the following configuration details: Server Name : PS735817; Connect Mode : Infrastructure Mode; Wireless Network Name(SSID) : WDAP2000; IP Settings: IP Address : 192.168.99.37; Subnet Mask : 255.255.255.0; Gateway : 192.168.99.253; Wireless Security : Disable. At the bottom right, there are buttons for "<< Back", "Save", and "Cancel".

7.11.2 Ad-Hoc Mode

1. If you are select “Ad-Hoc Mode” and click “Next” in section 7.11, you will see the dialog box below. You can let the print server automatically associate with other wireless station or manually assign the SSID of your wireless network. You can let the print server automatically select the channel that is the same with the peer or manually assign a channel.

Wireless - P5735817

Wireless

Connect to your wireless Network

Scan For Your local Wireless Network
Let the Wizard automatically scan for your Wireless Network(SSID)

Assign Your Wireless Network Manually
default
Enter your own Wireless Network ID (SSID)Manually

Channel Selection

Auto

Manual 11

<< Back Next >>

Cancel

2. When you are select first option to continue, you will see this screen for scan the wireless network. Please select the wireless device that you want to connect and click “Next”. If you don’t have see the wireless device that you would like to connected, please click “Scan” to search again.

Wireless - P5735817

Wireless

Wireless Network Name(SSID)

| SSID | BSSID | Channel |
|----------|-------------------|---------|
| WDAP2000 | 00:30:4F:44:9B:97 | 1 |

Scan Please scan and select the name of your Wireless Network from the list above.
If you do not see your Wireless Network please check to see if your Wireless Network is setup correctly and re-scan.

<< Back Next >>

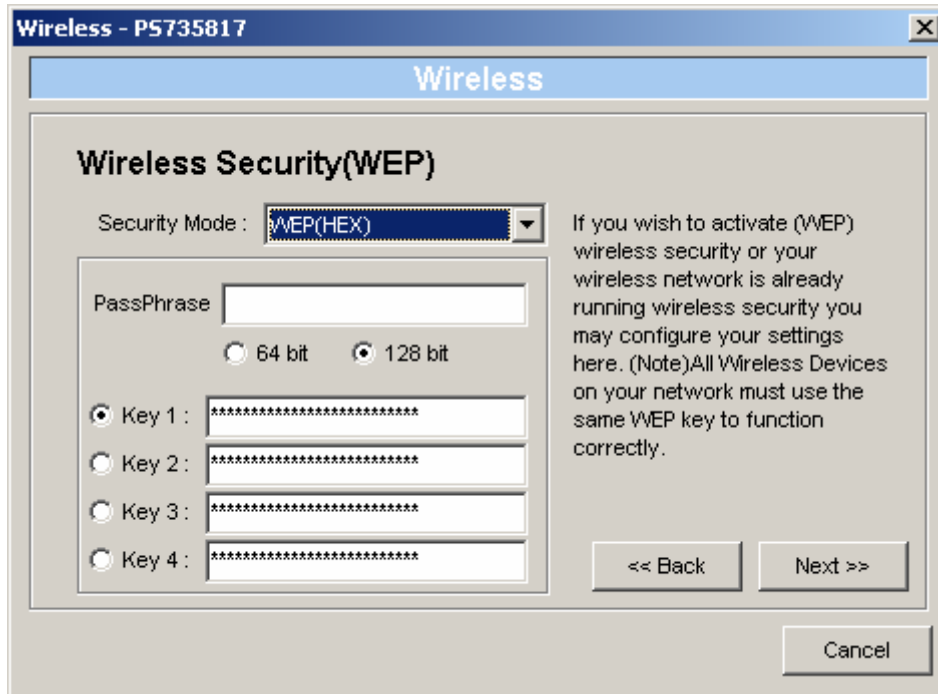
Cancel

3. This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP(ASCII)" or "WEP(HEX)". If you want to use WPA-PSK, you have to select "WPA-shared key". The wireless security setting should be the same with other wireless devices in the same network.

The screenshot shows a window titled "Wireless - P5735817" with a sub-header "Wireless". The main section is "Wireless Security(WEP)". The "Security Mode" dropdown menu is set to "Disable". Below it, there is a "PassPhrase" text box and two radio buttons for "64 bit" and "128 bit", with "128 bit" selected. There are four "Key" fields (Key 1 to Key 4), each with a radio button next to it, and "Key 1" is selected. To the right, there is a note: "If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here. (Note)All Wireless Devices on your network must use the same WEP key to function correctly." At the bottom right, there are three buttons: "<< Back", "Next >>", and "Cancel".

WEP Security Mode:

The screenshot shows the same "Wireless Security(WEP)" configuration window, but the "Security Mode" dropdown menu is now set to "WEP(ASCII)". The "PassPhrase" text box is empty. The "64 bit" and "128 bit" radio buttons are present, with "128 bit" selected. The "Key 1" to "Key 4" fields and their radio buttons are also present, with "Key 1" selected. The note on the right is identical to the previous screenshot. The buttons at the bottom right are "<< Back", "Next >>", and "Cancel".



You can select “64 bit” or “128 bit” length and “Hexdecimal” or “ASCII” format for the encryption key. Longer key length can provide stronger security but worth communication performance. Enter four key values by following the rules below and select one key as the default key.

- PassPhrase – A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server. This setting is only valid when the security mode is in “WEP(HEX)”.
- Key 1 to Key 4 – If the key length is 64-bit, enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: “0123456aef” or “Guest”.
If the key length is 128-bit, enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: “01234567890123456789abcdef” or “administrator”.

WPA-shared key Security Mode:

Wireless - P5735817

Wireless

Wireless Security(WEP)

Security Mode : WPA-shared key

WPA Algorithms : TKIP

Shared Key :

If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here. (Note)All Wireless Devices on your network must use the same WEP key to function correctly.

<< Back Next >>

Cancel

When “WPA-shared key”, also named “WPA-PSK” requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Algorithms – WPA Algorithms gives two encryption methods, TKIP and AES, with dynamic encryption key. Select the type of algorithms, TKIP or AES.
- Shared Key - Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click “Next” to go to next step.

4. You can select to let the print server automatically obtain IP settings from DHCP Server or manually assign the IP settings.
If you manually assign the IP settings, you have to enter IP address, subnet mask and default gateway address. When you finish configuring the IP settings, click "Next" to confirm the IP Address configuration.

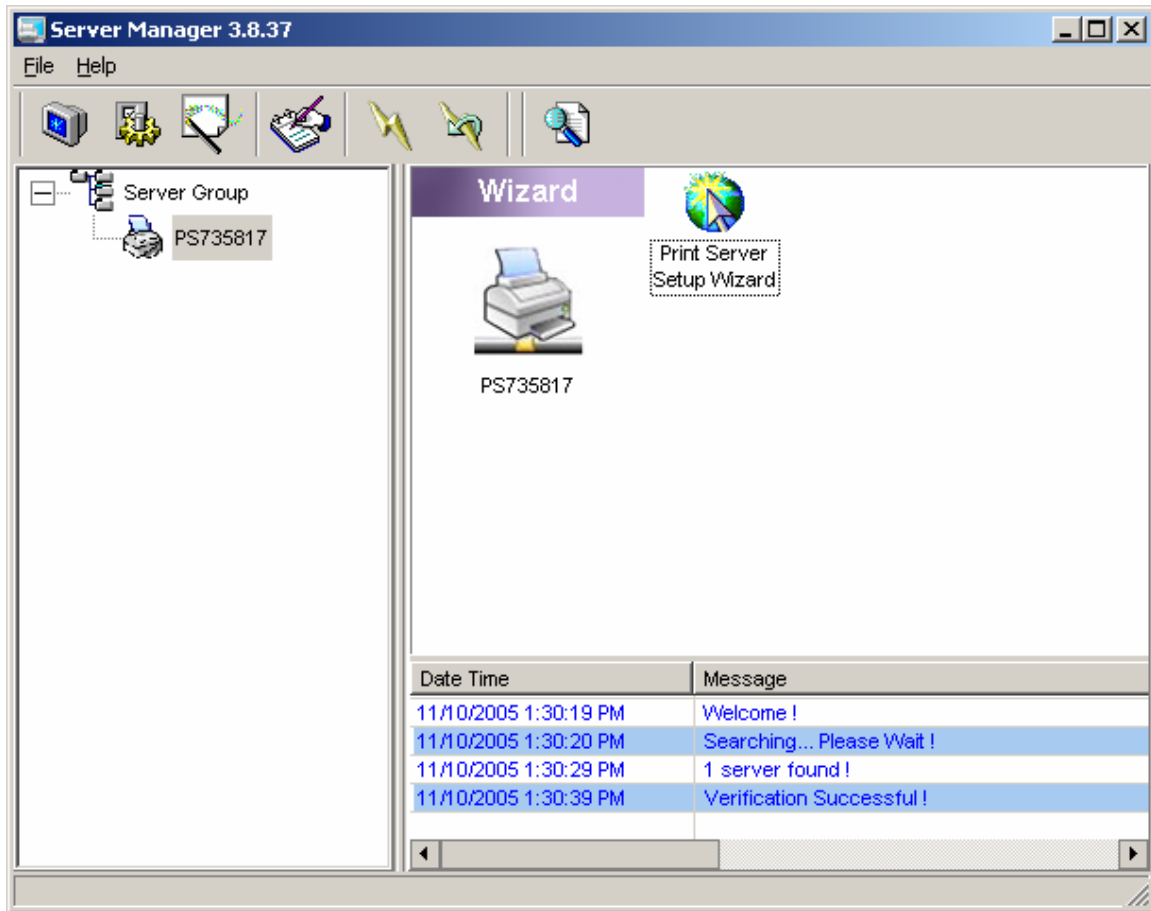
The screenshot shows a window titled "Wireless - PS735817" with a sub-header "Wireless". The main heading is "Configure Your Adapters IP Address". There are two radio button options: "Automatically Obtain IP Settings(DHCP)" and "Set Your IP Manually". The "Set Your IP Manually" option is selected. Below this, there are three rows of input fields for IP Address, Subnet Mask, and Gateway, each with four columns. The values entered are: IP Address: 192, 168, 99, 37; Subnet Mask: 255, 255, 255, 0; Gateway: 192, 168, 99, 253. At the bottom right, there are three buttons: "<< Back", "Next >>", and "Cancel".


| | | | | |
|---------------|-----|-----|-----|-----|
| IP Address : | 192 | 168 | 99 | 37 |
| Subnet Mask : | 255 | 255 | 255 | 0 |
| Gateway : | 192 | 168 | 99 | 253 |

5. Please click "Save" to save the wireless configuration.

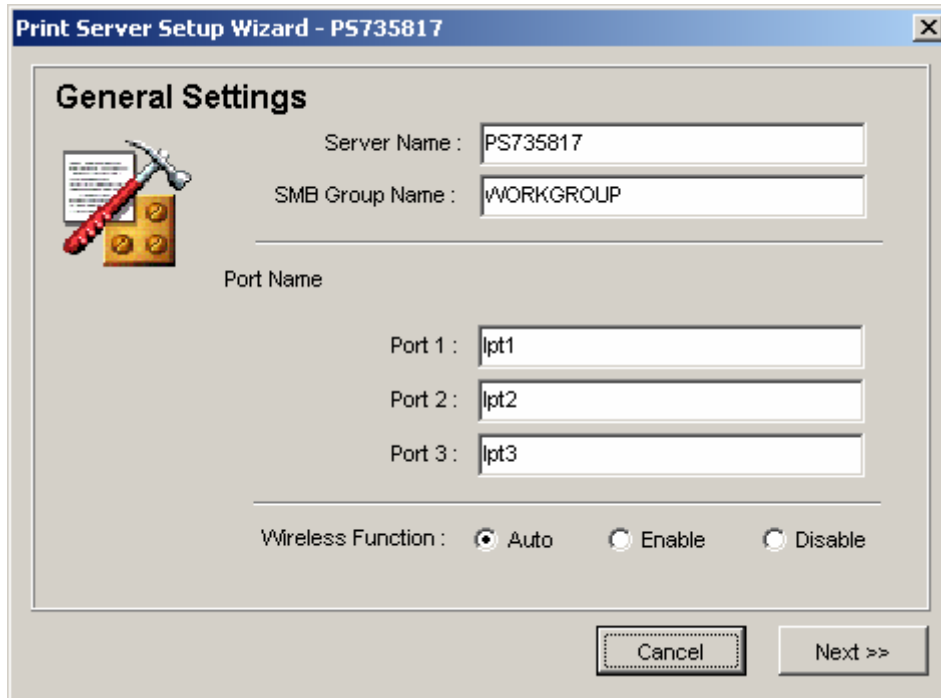
The screenshot shows a window titled "Wireless - PS735817" with a sub-header "Wireless". The main heading is "Setup Status Summary". The text displays the following configuration details: Server Name : PS735817; Connect Mode : Adhoc Mode (CH11); Wireless Network Name(SSID) : default; IP Settings: IP Address : 192.168.99.37; Subnet Mask : 255.255.255.0; Gateway : 192.168.99.253; Wireless Security : Disable. At the bottom right, there are three buttons: "<< Back", "Save", and "Cancel".

7.12 Wizard

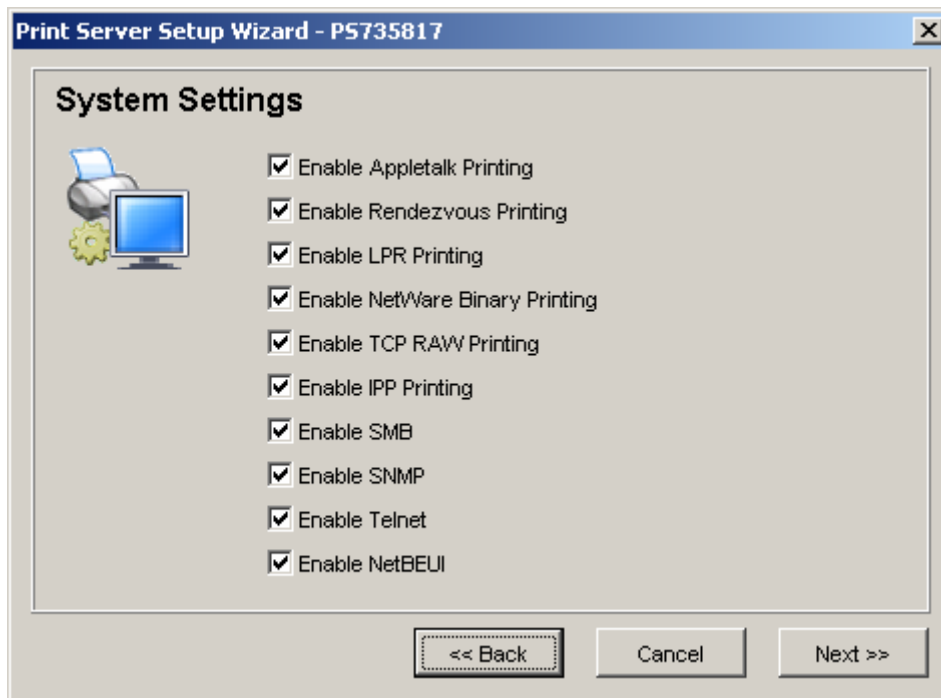


Click "Wizard" icon  on the tool bar, the setup wizard item of the current selected print server will be showed on the right side of the window.
Double click the "Print Server Wizard", the setup wizard will guide you through all the setup process from next page.

Step 1: Setup the Print Server Name and SMB Group Name of this print server and the name of each printer port. Please refer to section 7.5 for detail information.



Step 2: Select to enable required printing protocol. Please refer to section 7.10 for detail information.



Step 3: Setup the IP of this print server. Please refer to section 7.6 for detail information.

The screenshot shows a window titled "Print Server Setup Wizard - P5735817" with a close button in the top right corner. The main content area is titled "TCP/IP Settings" and features a small icon with four colored squares (red, green, blue, yellow) and the letters "T" and "P". Below the icon are two radio buttons: "Auto IP" (unselected) and "Static IP" (selected). A table below the radio buttons contains the following values:

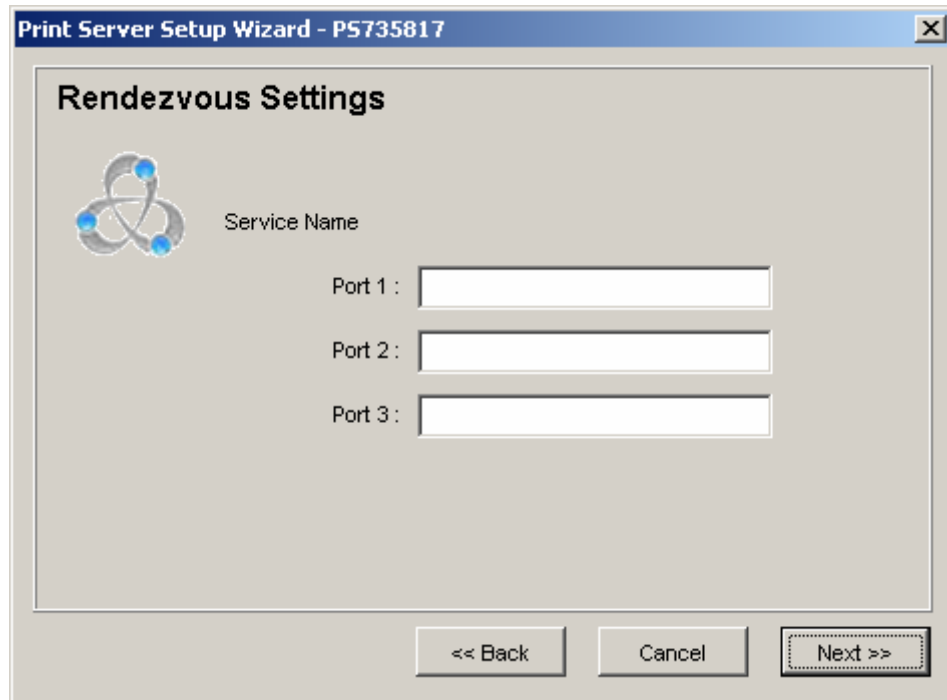
| | | | | |
|---------------|-----|-----|-----|-----|
| IP Address : | 192 | 168 | 99 | 37 |
| Subnet Mask : | 255 | 255 | 255 | 0 |
| Gateway : | 192 | 168 | 99 | 253 |

At the bottom of the window are three buttons: "<< Back", "Cancel", and "Next >>".

Step 4: Setup the AppleTalk printing. Please refer to section 7.8 for detail information.

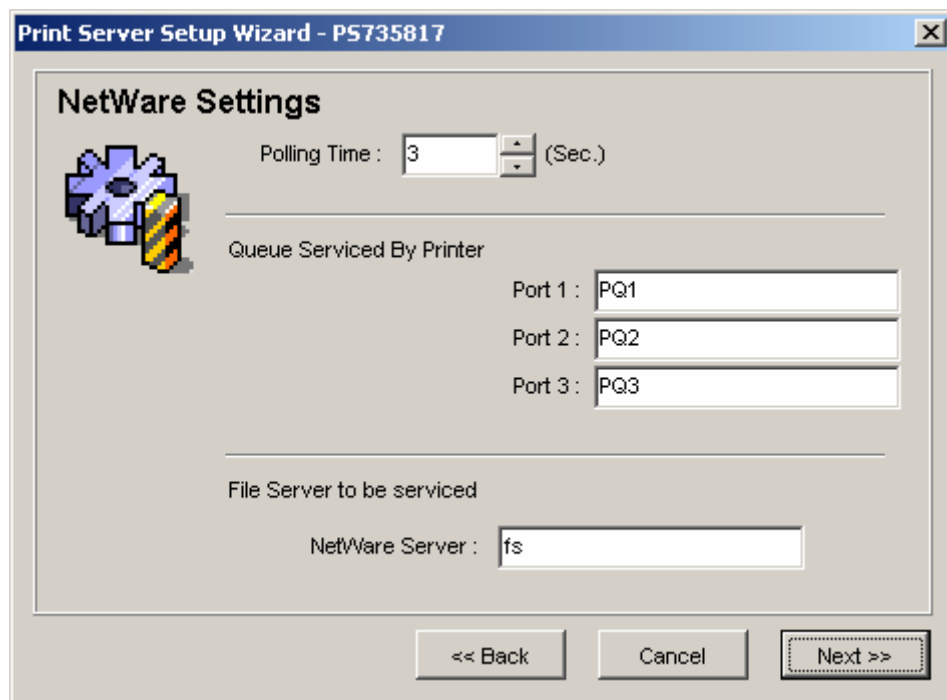
The screenshot shows a window titled "Print Server Setup Wizard - P5735817" with a close button in the top right corner. The main content area is titled "AppleTalk Settings" and features a blue Apple logo. Below the logo is a text field labeled "Zone Name :" with an asterisk and a cursor. Below this is a horizontal line. Underneath the line is the label "Printer Type" followed by three text fields, each labeled "Port 1 :", "Port 2 :", and "Port 3 :", all containing the text "LaserWriter". At the bottom of the window are three buttons: "<< Back", "Cancel", and "Next >>".

Step 5: Setup the Rendezvous settings. Please refer to section 7.9 for detail information.



The screenshot shows a dialog box titled "Print Server Setup Wizard - P5735817" with a close button (X) in the top right corner. The main heading is "Rendezvous Settings". To the left of the text is a logo consisting of three blue circles connected by lines. Below the heading, the text "Service Name" is followed by three empty text input fields labeled "Port 1:", "Port 2:", and "Port 3:". At the bottom of the dialog, there are three buttons: "<< Back", "Cancel", and "Next >>".

Step 6. Setup the NetWare printing. Please refer to section 7.7 for detail information.



The screenshot shows a dialog box titled "Print Server Setup Wizard - P5735817" with a close button (X) in the top right corner. The main heading is "NetWare Settings". To the left of the text is a logo consisting of a blue gear and a yellow and black striped cylinder. Below the heading, the text "Polling Time:" is followed by a spin box containing the number "3" and the text "(Sec.)". Below this is a horizontal line. The text "Queue Served By Printer" is followed by three text input fields labeled "Port 1:", "Port 2:", and "Port 3:", containing the values "PQ1", "PQ2", and "PQ3" respectively. Below this is another horizontal line. The text "File Server to be serviced" is followed by the text "NetWare Server:" and a text input field containing the value "fs". At the bottom of the dialog, there are three buttons: "<< Back", "Cancel", and "Next >>".

Step 7. Setup the Wireless interface. If you are select Infrastructure mode, please refer to section 7.11.1 for detail information. For Ad-Hoc mode, please refer to section 7.11.2.

Print Server Setup Wizard - P5735817

Set Your Wireless Adapter Mode

Infrastructure Mode
If you wish to use Wireless to connect to your Wireless Access Point, please select this mode.

Adhoc Mode
If you wish to connect head to head with another Wireless client, please choose this mode.

<< Back Cancel Next >>

Print Server Setup Wizard - P5735817

Connect to Your Wireless Network

Scan For Your local Wireless Network
Let the Wizard automatically scan for your Wireless Network(SSID)

Assign Your Wireless Network Manually

Enter your own Wireless Network ID (SSID)Manually

<< Back Cancel Next >>

Print Server Setup Wizard - P5735817 [X]

Wireless Network Name(SSID)

| SSID | BSSID | Channel |
|------------|-------------------|---------|
| WDAP2000-1 | 00:30:4F:44:9D:80 | 1 |

Please scan and select the name of your Wireless Network from the list above.
If you do not see your Wireless Network please check to see if your Wireless Network is setup correctly and re-scan.

<< Back Cancel Next >>

Print Server Setup Wizard - P5735817 [X]

Wireless Security(WEP)

Security Mode : ▼

PassPhrase

64 bit 128 bit

Key 1 :

Key 2 :

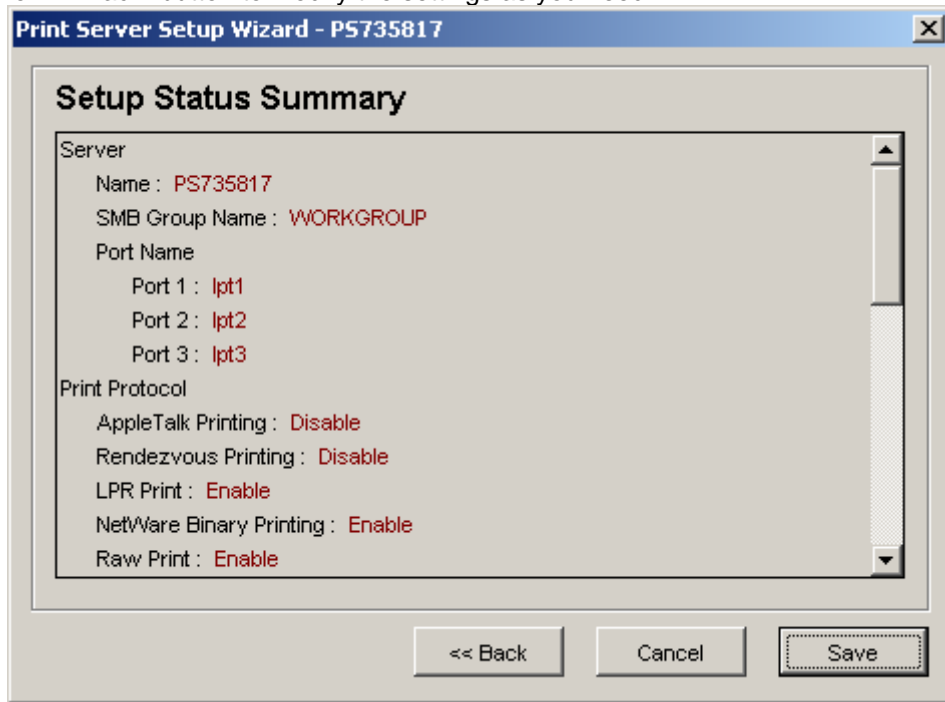
Key 3 :

Key 4 :

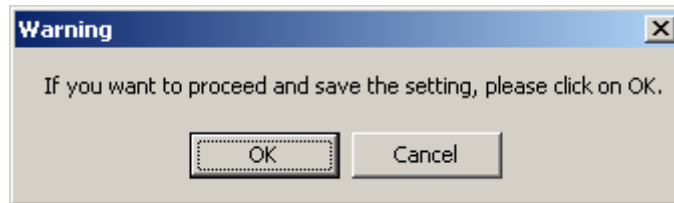
If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here. (Note)All Wireless Devices on your network must use the same WEP key to function correctly.

<< Back Cancel Next >>

Step8. Setup Status Summary. This screen will show you the total settings of this print server. If those settings are correct, please press “Save” for next step to save the settings or press “Cancel” or “<<Back” button to modify the settings as you need.



Step 9. Please press “Yes” to save the settings.



Chapter8 Web Management

8.1 Introduction

Print server can be configured and managed on the web browser. Through Local Area Network, or even Internet when this print server has an legal IP address. Administrator can easily configure and manage print server's various main functions in web browsers. Simply enter print server's IP address into your browser's address field to manage a print server by print server's built-in Web Server.

8.2 Web Management of Print Server

8.2.1 Login

You may use any Web Browser to review the status or configure the settings of the print server. After entering the IP address of the print server, a login dialog box display. You have to enter correct "User Name" and "Password" before going to the Web Management pages.

Notes: Default User Name is "admin", default password is "admin".



Enter Network Password

Please type your user name and password.

Site: 192.168.0.1

Realm Default: admin/admin

User Name

Password

Save this password in your password list

OK Cancel

8.3 Device Status

8.3.1 System

Device Setup | Setup Wizard | System Tools

STATUS SYSTEM

This page displays the current system settings of the print server.

System Information

| | | | | |
|------------|-----------------------|-------------------|----------------------|----------|
| SYSTEM | Device Name : | PS735817 | Raw Printing : | Enabled |
| Printer | Printer Server Name : | PS735817 | IPP Printing : | Enabled |
| TCP/IP | Model Type : | FPS3121G | LPR Printing : | Enabled |
| SMB | System Up Time : | Oday:00h:01m:23s | Rendezvous : | Disabled |
| SNMP | Firmware Version : | 1.09 | AppleTalk Printing : | Disabled |
| NetWare | MAC Address : | 00:30:4f:73:58:17 | NetWare Printing : | Enabled |
| AppleTalk | USB Port Number : | 2 | SMB : | Enabled |
| Rendezvous | LPT Port Number : | 1 | SNMP : | Enabled |
| | Wireless Lan Status : | Enable | Telnet : | Enabled |
| | | | NetBEUI : | Enabled |

In this page, it will show you all the system information such as “Device Name”, “Print Server Name”, “Model Type”, “System Up Time”, “Firmware Version”, “MAC Address” and other information. When you click the System Information screen , you will see the Wireless Configuration screen as below. Click again , the System Information screen will be back.

Device Setup | Setup Wizard | System Tools

STATUS SYSTEM

This page displays the current system settings of the print server.

Wireless Configuration

| | | |
|------------|------------------|------------|
| SYSTEM | Mode : | Not Active |
| Printer | ESSID : | Not Active |
| TCP/IP | Channel Number : | Not Active |
| SMB | Security : | Not Active |
| SNMP | State : | Not Active |
| NetWare | BSSID : | Not Active |
| AppleTalk | | |
| Rendezvous | | |

8.3.2 Printer

| Device Setup Setup Wizard System Tools | |
|--|---|
| STATUS Printer | This page displays the information of each printer connected to the print server. Note: if your printer does not support bi-directional function, some information will not be displayed correctly.. |
| SYSTEM | Printer 1 |
| Printer | Manufacturer : |
| TCP/IP | Model Number : |
| SMB | Printing Language Supported : |
| SNMP | Current Status : Off-Line |
| NetWare | Printer 2 |
| AppleTalk | Manufacturer : |
| Rendezvous | Model Number : |
| | Printing Language Supported : |
| | Current Status : Off-Line |
| | Printer 3 |
| | Manufacturer : |
| | Model Number : |
| | Printing Language Supported : |
| | Current Status : Off-Line |

This page will display the information of printers connected to all printer ports.

8.3.3 TCP/IP

| Device Setup Setup Wizard System Tools | |
|--|---|
| STATUS TCP/IP | This page displays the current TCP/IP settings of the print server. |
| SYSTEM | TCP/IP Settings |
| Printer | Use DHCP/BOOTP : OFF |
| TCP/IP | IP Address : 192.168.99.38 |
| SMB | Subnet Mask : 255.255.255.0 |
| SNMP | Gateway : 192.168.99.253 |
| NetWare | |
| AppleTalk | |
| Rendezvous | |

This page lists all TCP/IP Settings, include "IP Address", "Subnet Mask" and "Gateway".

8.3.4 SMB

Device Setup | Setup Wizard | System Tools

| | |
|----------------------|--|
| STATUS SMB | This page displays the current SMB settings of the print server. |
| SYSTEM | SMB Settings |
| Printer | SMB Group Name : WORKGROUP |
| TCP/IP | |
| SMB | |
| SNMP | |
| NetWare | |
| AppleTalk | |
| Rendezvous | |

This page will show the SMB Group Name.

8.3.5 SNMP

Device Setup | Setup Wizard | System Tools

| | |
|-----------------------|---|
| STATUS SNMP | This page displays the current SNMP settings of the print server. |
| SYSTEM | SNMP Settings |
| Printer | SNMP System Contact : Disabled |
| TCP/IP | SNMP System Location : Disabled |
| SMB | |
| SNMP | |
| NetWare | |
| AppleTalk | |
| Rendezvous | |

This page will show the SNMP System Contact and SNMP System Location. If the settings are empty, this page will show you the settings "Disabled".

8.3.6 NetWare

| Device Setup Setup Wizard System Tools | |
|--|--|
| STATUS NetWare | This page displays the current NetWare settings of the print server. |
| | General Settings |
| SYSTEM | Polling Time : 3 seconds |
| | NetWare Bindery Settings |
| Printer | Use Bindery Mode : Enabled |
| TCP/IP | Name of the File Server : fs |
| | NetWare Port Settings |
| SMB | Port1 Attachd Queue : PQ1 (Off Line) |
| SNMP | Port2 Attachd Queue : PQ2 (Off Line) |
| | Port3 Attachd Queue : PQ3 (Off Line) |
| NetWare | |
| AppleTalk | |
| Rendezvous | |

This page lists NetWare settings, include “Polling Time”, “Use Bindery Mode”, “Name of the File Server” and “Queue Name of each Port”.

8.3.7 AppleTalk

| Device Setup Setup Wizard System Tools | |
|--|--|
| STATUS AppleTalk | This page displays the current AppleTalk settings of the print server. |
| | AppleTalk Settings |
| SYSTEM | AppleTalk Zone Name : * |
| | Printer 1 |
| Printer | Printer Type : LaserWriter |
| TCP/IP | Printer 2 |
| SMB | Printer Type : LaserWriter |
| | Printer 3 |
| SNMP | Printer Type : LaserWriter |
| NetWare | |
| AppleTalk | |
| Rendezvous | |

This page lists AppleTalk settings, include “AppleTalk Zone Name” and “Printer Type of printers connected to all print ports”.

8.3.8 Rendezvous

The screenshot shows a web interface with a navigation menu on the left and a main content area. The navigation menu includes: STATUS RENDEZVOUS, SYSTEM, Printer, TCP/IP, SMB, SNMP, NetWare, AppleTalk, and Rendezvous (highlighted). The main content area has a header with the text "This page displays the current Rendezvous settings of the print server." Below this is a sub-header "Rendezvous Settings" followed by three lines of text: "Port1 Service Name : (null)", "Port2 Service Name : (null)", and "Port3 Service Name : (null)".

This page lists the Rendezvous port names.

8.4 Setup Wizard

8.4.1 System

The screenshot shows a web interface with a navigation menu on the left and a main content area. The navigation menu includes: SETUP SYSTEM, Wireless, TCP/IP, SMB, SNMP, NetWare, AppleTalk, Rendezvous, and Save Settings. The main content area has a header with the text "This Menu allows you to configure general system settings of the Print Server." Below this is a sub-header "System Settings" followed by three lines of text: "Print server Name : PS735817", "PORT1 Name : |pt1", "PORT2 Name : |pt2", and "PORT3 Name : |pt3". At the bottom of the main content area is a "Save & Next" button.

You also can configure the "Print Server Name", "User Name" and "Password" here.

Printer Server Name, the name of the print server. You can use this name to identify the print server when you are searching for the print server by the administration and client utilities.

Port Name: The name of the printer port. Each printer port has to be assigned a name. The printserver driver uses this name to access the printer port.

8.4.2 Wireless

If you want to use the print server through wireless LAN, please set up the print server through Ethernet first and make sure your wireless LAN setting is correct. In default, wireless interface will be set to “Auto”. After setting the wireless LAN, please unplug the Ethernet cable, then you can start to use the print server through wireless LAN. If the wireless configuration does not work, please plug the Ethernet cable back, restart the print server and make sure the wireless LAN settings are correct through Ethernet interface. Or you can “Enable” wireless interface in print server utility.

The screenshot shows a web-based configuration interface for wireless settings. At the top, there are navigation links: "Device Setup | Setup Wizard | System Tools". Below this, the page title is "SETUP WIRELESS". A sidebar on the left lists various setup categories: "SYSTEM", "Wireless", "Encryption", "SiteSurvey", "TCP/IP", "SMB", "SNMP", "NetWare", "AppleTalk", "Rendezvous", and "Save Settings". The main content area is titled "Wireless Setting" and contains the following text: "This page allows you to define your ESSID, Wireless Mode and Channel Number. Note, all wireless devices on your wireless network must have the same ESSID to communicate with one another." Below this, it says "Click 'Save and Next' to continue." The configuration fields are: "Mode : Ad hoc" (dropdown menu), "ESSID : default" (text input field), and "Channel Number : 11" (dropdown menu). At the bottom center, there is an orange "Save & Next" button.

You can select the wireless function and set parameters that are used for the wireless stations to connect to this print server from here. The parameters include “Mode”, “ESSID” and “Channel Number”. You can manually set the parameters of wireless LAN in this page or use the “Site Survey” function to automatically search for an available access point and associate with it.

Mode is the operation mode of wireless station. You can choose either “Ad Hoc” or “Infrastructure” mode. If you do not have any access point and want to use peer-to-peer connection, you have to choose “Ad Hoc” mode. If you have an access point as the wireless LAN infrastructure, you have to choose “Infrastructure” mode.

ESSID is the unique name identified by in a wireless LAN. The ID prevents the unintentional merging of two co-located WLANs. Please make sure that the ESSID of all stations and access points in the same WLAN network are the same.

Channel Number is the channel number of your wireless LAN. Please make sure that the channel number of all stations and access points in the same WLAN network are the same.

8.4.2.1 Encryption

This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select “WEP”. If you want to use WPA-PSK, you have to select “WPA-shared key”. The wireless security setting should be the same with other wireless devices in the same network.

Device Setup | Setup Wizard | System Tools

SETUP WIRELESS

Encryption allows your data being transmitted over the wireless network securely. If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

SYSTEM Click "Save and Next" to continue.

Wireless Encryption Setting

Encryption Mode :

Save & Next

Encryption

Site Survey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

WEP Security Mode:

Device Setup | Setup Wizard | System Tools

SETUP WIRELESS

Encryption allows your data being transmitted over the wireless network securely. If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

SYSTEM Click "Save and Next" to continue.

Wireless Encryption Setting

Encryption Mode :

Key format :

Key length :

Passphrase :

Enter a key into the table

Default key :

Key 1 :

Key 2 :

Key 3 :

Key 4 :

Save & Next

Encryption

Site Survey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

- Key Format - You may select to use ASCII Characters (alphanumeric format) or Hexadecimal digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.
- Key Length - You can choose "64-bit" to use WEP with 64-bit key length encryption or choose "128-bit" to use WEP with 128-bit key length encryption. The longer key length can provide better security but worse transmission throughput.
- PassPhrase - A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server.

- Default Key - Select one of the four keys to encrypt your data. Only the key you select it in the “Default key” will take effect.
- Key 1 - Key 4 - The WEP keys are used to encrypt data transmitted within the wireless network. Fill the text box by following the rules below.

64-bit WEP: input 10-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. For example: “0123456aef” or “Guest”.

128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 10-digit ASCII characters as the encryption keys. For example: “01234567890123456789abcdef” or “administrator”.

WPA-shared key Security Mode:

Device Setup | Setup Wizard | System Tools

SETUP WIRELESS

SYSTEM

Wireless

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

Encryption allows your data being transmitted over the wireless network securely. If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

Click "Save and Next" to continue.

Encryption Setting

Encryption Mode : WPA-shared key

WPA Unicast Cipher Suite : TKIP

Pre-shared Key Format : Passphrase

Pre-shared Key :

Save & Next

When “WPA-shared key”, also named “WPA-PSK” requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Unicast Cipher Suite: Provides two encryption methods, TKIP and AES, with dynamic encryption key. Select the type of algorithms, TKIP or AES.
- Pre-shared Key Format:
 - Passphrase:** Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.
 - Hex (64 character):** Enter 64 Hex characters to be the key for authentication within the network.

When you finish configuring the wireless security, click “Save & Next” to confirm the configuration.

8.4.2.3 Site Survey

You can use this "Site Survey" function to search for available access points in your location. In the list is the information of all available access points or wireless stations, includes SSID, BSSID, Channel, Type, Encryption and Signal Strength. You can select one wireless device in the list for this print server to associate with or you have to use General Setting to manually setup the wireless parameters.

There is "WLAN Function" setting for you to setup Auto/Disable/Enable wireless function of the print server here. Please refer to section 8.4.2.1 to know more about the setting.

Device Setup | Setup Wizard | System Tools

SETUP WIRELESS

SYSTEM

Wireless

Encryption

Site Survey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

This page provides tool to scan the wireless network. If any Print Server or IBSS is found, you could choose to connect it manually when client mode is enabled

Click "Select" to continue.

Wireless Site Survey

| SSID | BSSID | Channel | Type | Encrypt | Signal | Select |
|----------|-------------------|---------|----------------|---------|--------|-----------------------|
| WDAP2000 | 00:30:4F:44:9B:97 | 1 | Infrastructure | off | 38 | <input type="radio"/> |

Refresh Next Page Submit

8.4.3 TCP/IP

Device Setup | Setup Wizard | System Tools

SETUP TCP/IP

SYSTEM

Wireless

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

This Menu allows you to configure TCP/IP settings for the Print Server.

Click "Save and Next" to continue.

TCP/IP Settings

Enable Obtain TCP/IP settings automatically (use DHCP/BOOTP)

Disable Use the following TCP/IP settings

IP Address :

Subnet Mask :

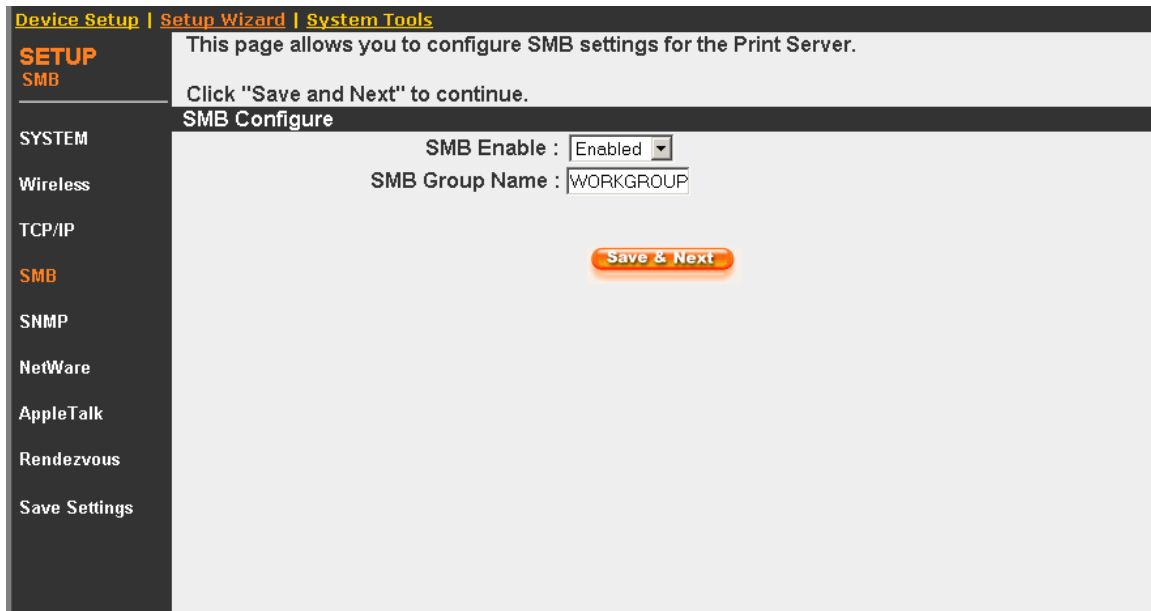
Gateway :

Save & Next

You can configure the print server to automatically obtain an IP address from your LAN DHCP server or manually specify a static IP address.

If you need the print server to automatically get an IP from DHCP server, select "Enable Obtain TCP/IP settings automatically". Or you can select "Disable Use the following TCP/IP settings" to manually assign IP Address, Subnet Mask and Gateway for the print server.

8.4.4 SMB



The screenshot shows a web interface for configuring SMB settings. At the top, there are navigation links: "Device Setup", "Setup Wizard", and "System Tools". Below these, the page title is "SETUP SMB". The main content area contains the following text: "This page allows you to configure SMB settings for the Print Server." and "Click 'Save and Next' to continue." Below this, the section is titled "SMB Configure". There are two configuration fields: "SMB Enable" with a dropdown menu set to "Enabled", and "SMB Group Name" with a text input field containing "WORKGROUP". At the bottom of the configuration area, there is a "Save & Next" button. On the left side, there is a vertical navigation menu with the following items: "SYSTEM", "Wireless", "TCP/IP", "SMB" (highlighted in orange), "SNMP", "NetWare", "AppleTalk", "Rendezvous", and "Save Settings".

You may Enable/Disable the SMB Printing protocol of this print server. When this setting enable, you have to enter the SMB Group Name, you should set this name as your network PCs assigned. Then the PCs can find this printserver in Network Neighbor and attach to this print server as a Network Printer.

8.4.5 SNMP

Device Setup | Setup Wizard | System Tools

SETUP
SNMP

This page allows you to configure SNMP settings for the Print Server.

Click "Save and Next" to continue.

SNMP Configure

SNMP Enable :

SNMP System Contact :

SNMP System Location :

Save & Next

SYSTEM

Wireless

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

This printserver has support SNMP protocol for users user SNMP management tool to monitor from a remote site. You can Enable this protocol and set the SNMP System Contact and SNMP System Location in this page.

SNMP System Contact: Text Field - Name of the contact person.

SNMP System Location: Text Field - Location of the contact person.

8.4.6 NetWare

Device Setup | Setup Wizard | System Tools

SETUP
NetWare

This Menu allows you to configure the NetWare function of the Print Server.

Click "Save and Next" to continue.

General Settings

Polling Time : seconds(min: 3, max: 29 seconds)

NetWare Bindery Settings

Name of the File Server :

Attach Queue1 :

Attach Queue2 :

Attach Queue3 :

Save & Next

SYSTEM

Wireless

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Rendezvous

Save Settings

This print server supports NetWare Bindery Printing method. The print server periodically polls the NetWare server printer queues for printing jobs. You have to assign the NetWare server name, print server polling interval and the name of queue on the NetWare server for each printer port.

Polling Time: The polling interval of the print server for waiting printing jobs on the NetWare server.

Name of the File Server: Name of the NetWare file server that provides printer queues.

Attached Queue: Name of the printer queue on the NetWare server. The printer queue keeps all printing jobs waiting on the NetWare server. You have to assign a printer queue for each printer port of this print server.

8.4.7 AppleTalk

The screenshot shows a web-based configuration interface for AppleTalk settings. At the top, there are navigation links: "Device Setup", "Setup Wizard", and "System Tools". The main heading is "SETUP AppleTalk". Below this, a message states: "This page allows you to configure AppleTalk settings for the Print Server. Leave the settings boxes blank and Click 'Save & Next' if you don't use the AppleTalk protocol." The "Apple Talk Settings" section includes a dropdown menu for "AppleTalk Enable" set to "Enabled" and a text field for "AppleTalk Zone Name" containing an asterisk (*). Below this, there are three printer configuration sections: "Printer 1", "Printer 2", and "Printer 3", each with a "Printer Type" dropdown menu set to "LaserWriter". At the bottom right, there is a "Save & Next" button. On the left side, a vertical navigation menu lists various setup categories: "SYSTEM", "Wireless", "TCP/IP", "SMB", "SNMP", "NetWare", "AppleTalk" (highlighted), "Rendezvous", and "Save Settings".

AppleTalk is a data communication protocol often used by Macintoshes. The print server can use these parameters to join the AppleTalk network and share the printer to other AppleTalk workstations. When you select "Enable", you have to setup the "Zone Name" and "Printer Type" for each printer port of this print server.

Zone Name: Print server has to join zones of AppleTalk before it can be shared to other workstations. Only workstations in the same zone can share the printer. If you want to share the printer to all workstations in all Zones, you should enter only "*" in the "Zone Name" field.

Printer Type, the type of printer attached to each printer port. You can get the printer type from the manufacturer of the printer.

8.4.8 Rendezvous

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
Rendezvous

SYSTEM
Wireless
TCP/IP
SMB
SNMP
NetWare
AppleTalk
Rendezvous
Save Settings

This page allows you to configure Rendezvous settings for the Print Server.

Leave the settings boxes blank and Click "Save & Next" if you don't use the Rendezvous.

Rendezvous Settings

Rendezvous Enable :

Port1 Service name :

Port2 Service Name :

Port3 Service Name :

Save & Next

Rendezvous is a new data communication protocol used by new Mac OS. The new OS can connect to printserver directly via this protocol. When you select "Enable", you have to setup the "Port Service Name" for each printer port of this print server.

Port Service Name: The name will show to MAC OS when it be found.

8.5 System Tools

8.5.1 Load Default

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SYSTEM
Load Default

Load Default
Upgrade from Browser
Backup Setting

This page allows you to restore the factory default settings.

Load Factory Defaults

Are you sure you want to load factory defaults ?

OK

You can restore print server to factory default settings in this screen. All of your previous configuration will be cleared.

8.5.2 Upgrade Firmware

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SYSTEM
Upgrade

This page allows you to upgrade the firmware of the Print Server.

Note: please make sure the firmware is correct before you proceed. If you do not know which firmware file you should use, please contact your local dealer for technical support.

Firmware Upgrade

Select a File : Browse...

OK

You can upgrade new firmware for this print server in this screen. Click “Browse...” button to locate the new firmware and then click “OK”, the firmware will be updated in several minutes.

8.5.3 Backup Setting

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SYSTEM
Backup

This page allows you to backup the configuration of the Print Server.

Note: please make sure the firmware is correct before you proceed. If you do not know which firmware file you should use, please contact technical support.

System Backup

Backup settings from Print Server
 Restore settings from file

Select a File: Browse...

OK

In this page, you can backup current configuration into a config file. When you want to work with old configuration. Please select “Restore Settings form file” and click “Browse...” to find out the config file, then press “OK” to restore.

Chapter9 IPP Printing

9.1 Introduction

IPP (Internet Printing Protocol) Printing provides a convenient way of remote printing service by TCP/IP. The print server can support IPP printing by default. It is needless to do any setting. Any PC that can support IPP printing, for example Windows 2000/XP, can directly uses the print server by IP. By using the IPP printing, you can share the printer to all the PC's that can access the print server by IP. You can even share your printer to Internet users.

9.2 System Setup

9.2.1 Print Server Side

It is needless to do any setting on the print server side. Make sure the print server has correct IP settings. If you want to share the printers to Internet users, you have to set a public IP to the print server. You also have to make sure that any gateway, router or firewall does not block IPP protocol if you have these gateway devices installed in your network.


9.2.2 Client Side

You only need to perform Window's standard **Add New Printer** procedure, select "**Network Printer**" shown in the screen below and click "Next >".



Select "Connect to a printer on the Internet or on a home or office network" and enter the URL of print server. The URL format is "http://IP/LPT_PORT:631". The IP should be the print server's IP. LPT_PORT is the port name of print server that your print is connected to. For the one port print server, the port name is "lpt1". For the three port print server, the port name is one of the three –

lpt1, lpt2 or lpt3. The last number 631 is IPP standard port number. One example of the URL is "http://192.168.12.13/lpt1:631". After entering the URL of print server, click "Next >" and complete the configurations afterwards to access the shared printer.



Add Printer Wizard

Specify a Printer
If you don't know the name or address of the printer, you can search for a printer that meets your needs.

What printer do you want to connect to?

Browse for a printer

Connect to this printer (or to browse for a printer, select this option and click Next):

Name:

Example: \\server\printer

Connect to a printer on the Internet or on a home or office network:

URL:

Example: http://server/printers/myprinter/.printer

< Back Next > Cancel